

## **LUTTRELL Suzy**

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**To:** Andes Gary  
**Subject:** FW: Covanta

**From:** Thomas Grove <thomasfgrove@gmail.com>  
**Sent:** Friday, October 4, 2019 11:16 AM  
**To:** LUTTRELL Suzy <Luttrell.Suzy@deq.state.or.us>  
**Subject:** Covanta

Dear Ms. Luttrell,

I would like to be one of the 10 people to request a hearing on the proposed changes to the operating permit for the Covanta Incinerator. Please keep me informed on this matter as it is of great interest to me.

Sincerely,

Thomas Grove  
2701 74th Ave. SE  
Salem, OR 97317



**The Covanta Marion facility in Brooks. (Photo: DAVID DAVIS AND KELLY JORDAN / STATESMAN JOURNAL)**

At this point, the public has until 5 p.m. Oct. 31 to comment on the air pollution permit renewal. That date could be extended though, because of the error.

DEQ will schedule a public hearing if one is requested by at least 10 people, or by an organization of at least 10 people.

Mail comments to Suzy Luttrell, 4026 Fairview Industrial Dr. SE, Salem, OR 97302; or email [luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

More information is available at <https://www.oregon.gov/deq/get-involved/documents/103119Covanta.pdf>.

*Contact the reporter at [tloew@statesmanjournal.com](mailto:tloew@statesmanjournal.com), 503-399-6779 or follow at [Twitter.com/Tracy\\_Loew](https://twitter.com/Tracy_Loew)*

**Dylan Darling**

Public Affairs Specialist

Oregon Department of Environmental Quality

Western Region – Eugene

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## LUTTRELL Suzy

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**From:** Douglas Corey <dbcorey5200@msn.com>  
**Sent:** Friday, October 4, 2019 2:03 PM  
**To:** LUTTRELL Suzy  
**Subject:** Covanta Incinerator

Please included me in any tally of citizens in support of continued operation of the facility And it's acknowledged reasonably clean emissions. Furthermore it's waste to electricity generation Should qualify it as " a renewable energy source" in any upcoming "fact finding" to Legislature!! Am old enough to have been to old Brown's Island landfill and seen the burial of waste that won't decompose for 1,000 years! And enviromental activists don't realize that recycling facilities are backlogged with insufficient outlets for recycled materials e.g. recent banning of plastic retail sales bags that were made from recycled plastic. And... can closure advocates really believe that it will be cheaper to haul all Marion County waste to Linn County's Coffin Butte ...Not! And Good Luck in ever citing a new landfill capable of handling local waste, not to mention Other's that are processed at Covanta!! Please send receipt acknowledge of my sincere opinion response.

Sent from Outlook

## LUTTRELL Suzy

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**From:** Norman Miles <nmiles56@yahoo.com>  
**Sent:** Monday, October 21, 2019 12:33 PM  
**To:** LUTTRELL Suzy  
**Subject:** Opposition to Covanta Permit.

Hello and thank you for your service to the protection of our environment. I am writing to you in opposition to Covanta getting an Air Pollution Permit renewal. We owe it to future generations to do all we can to limit the amount of carbon we are releasing into the atmosphere.

Sincerely, Norman C. Miles  
440 25th St. SE #5 Salem 97301

Sent from Yahoo Mail on Android



## **LUTTRELL Suzy**

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**From:** Philip Ratcliff <skazz999W@hotmail.com>  
**Sent:** Sunday, November 10, 2019 9:23 PM  
**To:** LUTTRELL Suzy  
**Subject:** Marion County Incinerator

The Covanta Marion County incinerator is bad news for Marion County. Past claims that the incinerator has met emissions standards is not sufficient to alleviate our concerns because those standards were based only on Best Available Control Technology (BACT) and do not limit emissions to levels that scientific data indicate are protective of health. Therefore, we submit the following recommendations.

The draft permit increases the allowable annual emissions of small and fine particulate matter from 14 and 12 tons, respectively, to 16 tons each. These small particles are known to cause or aggravate health problems in people who breathe them — especially for sensitive groups such as the elderly and very young. According to the US EPA: “Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:

- premature death in people with heart or lung disease
- nonfatal heart attacks
- irregular heartbeat
- aggravated asthma
- decreased lung function
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.”

Dioxins can attach themselves to fine particulate matter, and in some cases fine particulates are made up of tiny particles of these toxic materials. Such small particles of pollution can penetrate the lungs and enter the bloodstreams of people who inhale them. These toxins cause adverse health effects in exceptionally small quantities.

Recommendation: The DEQ should not allow any increase in particulate matter because of the increased risk of adverse health impacts to people downwind from the incinerator. The DEQ permit should reduce allowable particulate emissions, not allow an increase.

The draft permit increases allowable total greenhouse gas emissions to 214,400 tons (194,500 metric tons). However, actual greenhouse gas emissions from the incinerator reported by DEQ from 2014 through 2017 range from a low of 160,517 metric tons of carbon dioxide equivalent in 2016 to a high of 172,780 metric tons in 2014. At these levels, the Covanta Marion incinerator is already the biggest single facility source of greenhouse gas emissions in Marion County. It is counterproductive to allow almost 22,000 additional metric tons of greenhouse gases above the 2014 high when the State has a goal of reducing greenhouse gases overall.

Philip Ratcliff

4665 Tragen Ct. SE

Salem OR

97302

Sent from Mail for Windows 10

## LUTTRELL Suzy

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**From:** M'lissa Wetherell <m.wetherellmoore@gmail.com>  
**Sent:** Monday, November 11, 2019 3:25 PM  
**To:** LUTTRELL Suzy  
**Subject:** Covanta Permit Renewal comments

I support the permit recommendations in comments submitted by the coalition of air quality groups in Oregon including Eastside Portland Air Coalition, Beyond Toxics, 350-Salem and the local grassroots organizers from Marion County.

Covanta should be designated and treated as a MEDICAL waste incinerator, which has better Air Quality standards

The Covanta incinerator permit renewal MUST:

- a) state that DEQ will call Covanta into Cleaner Air Oregon as soon as possible
- b) not allow the proposed increase in particulate matter and greenhouse gas emissions
- c) require regular stack testing and continuous emissions monitoring of air toxics
- d) require a record of types of medical waste going into the incinerator with unannounced spot check of actual box contents
- e) not allow mercury, sulfur dioxide, and hydrogen chloride emissions to exceed health protective standards by BOTH weight and percentage concentration
- f) require fire emergency plan and adequate liability insurance in case of accidental fires
- g) regulate emissions from periods of startup, shut down, and any malfunctions
- h) require transport trucks to have a lined compartment to prevent fly ash leakage and test for toxins along roadways
- I) hold Special Waste Management Plans to the highest health standards

We have to put the protection of the environment and the living beings (both human and animal) over giving lax requirements to waste disposal. We can do better and should do better to protect overall health of our communities.

Thank you,

M'lissa Wetherell-Moore

## **LUTTRELL Suzy**

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**From:** Ray Quisenberry <rayquisenberry@centurylink.net>  
**Sent:** Thursday, November 14, 2019 2:29 PM  
**To:** LUTTRELL Suzy  
**Subject:** Covanta garbage burner

Dear Ms Luttrell

I'm emailing today to ask that DEQ not renew the Title V operating permit for the Covanta trash burner. Besides the high amounts of greenhouses gasses released from the burner, the added toxins and particulates from burning garbage, especially plastic, are unacceptable.

We should be reducing the amount of garbage we create, and burying what is left to keep it out of our air and water.

Thank you

Ray Quisenberry

Sent from my iPad

**LUTTRELL Suzy**

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**From:** Mike Hughes <hughes.m@comcast.net>  
**Sent:** Sunday, November 17, 2019 4:38 PM  
**To:** LUTTRELL Suzy  
**Subject:** COVANTA MARION INCINERATOR AIR QUALITY PERMIT TESTIMONY Permit Number 24-5398-TV-01

**COVANTA MARION INCINERATOR AIR QUALITY PERMIT**

**TESTIMONY**

**Permit Number 24-5398-TV-01**

Greetings:

I am writing to express my feelings regarding the renewal of the air quality permit for the Covanta Marion waste incinerator in Brooks, Oregon.

Given the overwhelming scientific evidence of human-related causes of climate change and the worldwide efforts to mitigate it, it would seem obvious that the requirements for renewal of the permit should include a very significant reduction in total (anthropogenic and biogenic) greenhouse gas emissions and most certainly not an increase.

In addition, the emissions of materials hazardous to public health or the environment such as dioxins, heavy metals and particulate matter, should require reductions or, at the very least, the same levels. The proposal for an increased allowable small and fine particulate matter is certainly unacceptable. Stack testing should be required for every burner annually.

Incineration of medical waste should require careful recording which includes delineation of types ("blue bin" vs. "gray bin") and frequent spot checking for verification.

Since Marion County residents are already paying higher disposal rates than residents of Polk County and the Coffin Butte landfill generates far less and far fewer kinds of toxic material into the atmosphere, the burden of justifying the increased danger to the climate and population in order to continue the incineration of solid waste rests on Covanta Marion. I have yet to see any convincing evidence which would justify renewal of their permit and, since they themselves have argued that they cannot afford to refurbish and maintain their facility since losing their argument for renewable energy credits, I request that the renewal of their permit as proposed be denied.

Sincerely,

Michael P. Hughes

935 Barkstone Ct. SE

Salem, OR 97306

(503) 584-0806

[hughes.m@comcast.net](mailto:hughes.m@comcast.net)

## **LUTTRELL Suzy**

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**To:** Lisa Arkin  
**Cc:** Laurie Dougherty; Carroll Johnston; Katharine Salzmänn; Reyna Lopez; Martha Sonato; Mary Peveto; Andes Gary  
**Subject:** RE: Covanta Marion, Inc. Air Quality Permit

Thank you, for your comments. I have copied the permit writer.

Sincerely,

Suzy Luttrell  
AQ Permit Coordinator  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302  
503-378-5305  
[luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From:** Lisa Arkin <larkin@beyondtoxics.org>  
**Sent:** Monday, November 18, 2019 2:57 PM  
**To:** LUTTRELL Suzy <Luttrell.Suzy@deq.state.or.us>  
**Cc:** Laurie Dougherty <lauriedougherty@gmail.com>; Carroll Johnston <carrollj77@gmail.com>; Katharine Salzmänn <katharinesalzmänn@gmail.com>; Reyna Lopez <reynalopez@pcun.org>; Martha Sonato <marthasonato@pcun.org>; Mary Peveto <mary@whatsinourair.org>  
**Subject:** Covanta Marion, Inc. Air Quality Permit

To: Oregon DEA  
Re: Covanta Marion, Inc. Air Quality Permit  
Date: 11/18/2019

Please submit the attached comments to the public record. The five organizations signing on to these comments request a confirmation that these have been received and that the DEQ will respond to the points we have raised.

Sincerely, Lisa

***Lisa Arkin, Executive Director***

**Beyond Toxics**

**541-465-8860**

**2 offices:**  
**120 Shelton McMurphey Blvd., Suite 280, Eugene, OR 97401**  
**312 N. Main St., Suite B, Phoenix, OR 97535**

[larkin@beyondtoxics.org](mailto:larkin@beyondtoxics.org)

*“The eyes of the future are looking back at us, and they are praying for us to see beyond our own time.”*

*Terry Tempest Williams*





## COVANTA MARION INCINERATOR AIR QUALITY PERMIT TESTIMONY

Permit Number 24-5398-TV-01

The undersigned organizations and individuals have concerns about the environmental and human health impacts of the Covanta Marion waste incinerator in Brooks, Oregon. Past claims that the incinerator has met emissions standards is not sufficient to alleviate our concerns because those standards were based only on Best Available Control Technology (BACT) and do not limit emissions to levels that scientific data indicate are protective of health. Therefore, we submit the following recommendations.

**1. Particulate Matter and Public Health:** The draft permit increases the allowable annual emissions of small and fine particulate matter from 14 and 12 tons, respectively, to 16 tons each. These small particles are known to cause or aggravate health problems in people who breathe them — especially for sensitive groups such as the elderly and very young. According to the US EPA: "Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:

- premature death in people with heart or lung disease
- nonfatal heart attacks
- irregular heartbeat
- aggravated asthma
- decreased lung function
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing."

(<https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>).

Heavy metals and dioxins can attach themselves to fine particulate matter, and in some cases fine particulates are made up of tiny particles of these toxic materials. Such small particles of pollution can penetrate the lungs and enter the bloodstreams of people who inhale them. These toxins cause adverse health effects in exceptionally small quantities.

Recommendation: The DEQ should not allow any increase in particulate matter because of the increased risk of adverse health impacts to people downwind from the incinerator. The DEQ permit should reduce allowable particulate emissions, not allow an increase.

**2. Greenhouse Gas Emission Limits:** The draft permit increases allowable total greenhouse gas emissions to 214,400 tons (194,500 metric tons). However, actual greenhouse gas emissions from the incinerator reported by DEQ from 2014 through 2017 range from a low of 160,517 metric tons of carbon dioxide equivalent in 2016 to a high of 172,780 metric tons in 2014. At these levels, the Covanta Marion incinerator is already the biggest single facility source of greenhouse gas emissions in Marion County. It is counterproductive to allow almost 22,000 additional metric tons of greenhouse gases above the 2014 high when the State has a goal of reducing greenhouse gases overall. Here are the actual emissions Covanta Marion reported to DEQ at the sites linked to this web address (2014 to 2017 Greenhouse Gas Facility Emissions Reports for top Oregon GHG producers):

<https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx>)

2017: 160,844 metric tons

2016: 160,517 metric tons

2015: 168,541 metric tons

2014: 172,780 metric tons

The trend since 2014 is downward.

Recommendation: The DEQ permit should require continued greenhouse gas reductions rather than going in the opposite direction.

**3. Accurate Stack Testing:** The stack test for dioxins and furans should occur for both combustors every year. Now that medical waste can be burned in either combustor, it would be all too easy for the incinerator operators to shift the medical waste to the combustor not being tested for dioxins and furans in any given year and thereby miss an increase in dioxin and furan emissions due to plastics in the medical waste burned by that combustor. Also, by tracking the actual amount of blue bin medical waste and gray bin medical waste being burned in each combustor during stack testing, more data could be collected about the actual effects of medical waste on emissions.

Recommendation: The DEQ must require stack testing for dioxins and furans for both combustors on an annual basis and should delineate incineration of blue bin versus gray bin medical waste to determine how each type of waste could affect the emissions.

**4. Startup/Shutdown/Malfunction Emissions:** Condition Number 29 states that the limits/standards in conditions 14, 15, and 17 through 28 do not apply during periods of startup, shut down, and malfunction. This ignores the fact that the emissions during those periods of upset still enter the lungs of people downwind and affect their health just as surely as emissions that occur during periods of optimum operation. In fact, research in other countries has demonstrated that during these conditions of upset very significant increases in emissions of some of the most toxic chemicals occur. The facility should be held to non-harmful emission limits at ANY time that emissions are occurring. Excluding likely spikes in air toxic emissions during startup, shut down, and malfunction is a left-over concept from before the passage of Cleaner Air Oregon, when state air quality rules were equipment and technology based, and not health-based.

Recommendation: The DEQ must include emissions from periods of startup, shut down, and malfunction in the standards and limits of this air quality permit based on the likelihood that these events will result in spikes in hazardous emissions that constitute a danger to public health.

**5. Medical Waste Record Keeping:** Condition Number 37f states that a performance test report must include the following: "Amount of medical waste burned in the municipal waste combustor unit during dioxin/furan performance testing." Medical waste amounts are similarly required to be reported for condition 70b. These conditions should further specify that the amount of blue bin medical waste versus gray bin medical waste be delineated in

these reports. It would also be appropriate to require that a reasonable representation of a typical amount of these types of medical waste be included in some of the test runs so analysis of test results could indicate the effects of these types of medical waste on emissions, and future permit requirements could be adjusted accordingly (such as when the Cleaner Air Oregon requirements are integrated into the permit).

Recommendation: Delineation of blue bin versus gray bin medical waste going into the incinerator should be recorded all year for all incoming medical waste, and actual spot check verification that boxes labeled as blue bin medical waste truly are blue bin medical waste (especially during stack testing) would also be prudent.

**6. Special Waste Management:** Before granting the facility permission to accept waste under a Special Waste Management Plan as referenced in Item 4 (Fuel) of the Review Report appended to the draft permit, DEQ should have reasonable scientific basis to expect that burning a particular type of special waste will not have deleterious effects on the surrounding community. Although the basis for such permission decisions is not contained within the permit language itself, DEQ should assess whether the addition of a particular type of special waste might cause emissions to exceed Cleaner Air Oregon health risk standards and not just MACT or BACT-based standards. As a hypothetical example, if it were found that the large quantities of netting accepted for incineration from the ocean fishing industry were to contain significant amounts of polyvinylchloride plastics (PVC), DEQ might decline to permit the incineration of that material due to the high likelihood of a significant increase in the emission of dioxins as a result of a significant increase in chlorine in the incinerator fuel. Similar decisions might be made about special waste materials that are found to contain heavy metals. Heavy metals can show up in some of the least expected places, such as certain types of colored cardboard as indicated at this web address (<https://bioresources.cnr.ncsu.edu/resources/the-effect-of-colorants-on-the-content-of-heavy-metals-in-recycled-corrugated-board-papers/>). We do not know the extent to which DEQ already analyzes potential special waste for requested Special Waste Management Plans, but we encourage particular attention be paid to the potential health effects from such materials if they are incinerated and emissions from them go out into the community.

Recommendation: The DEQ should include the rationale or basis for permitting Special Waste Management Plans and hold these Plans to high standards in order to avoid increasing potential health risks.

**7. Fire Hazards:** The inclusion of "accidental fires" under the heading "categorically insignificant activities" on page 9 of the appended Review Report vastly understates the problem should a significant fire occur in the waste mixing pit (outside the controlled incinerator). Large quantities of toxic emissions would spread during such an event, especially if the pit contained significant quantities of chlorine containing material, such as PVC.

Such fires have occurred in other states in incinerators operated by Covanta and other companies. Such an event could be more significant in terms of health effects than many

months' worth of regular emissions from the facility (and thus not "categorically insignificant"). Such fires are very hard to put out and have been known to smolder for days or even weeks. The possibility of hazardous air toxic emissions from an accidental fire could be quite significant.

This article describes the health warnings to residents when such a fire occurred in a Covanta facility in Montgomery County, MD in late 2017: "County officials are advising people in the immediate vicinity of the facility, who are experiencing asthma, chronic lung or heart conditions to minimize exposure by either staying indoors or to avoid the area. If you experience increased symptoms, you should contact your health care provider."

<https://www.mymcmedia.org/hundreds-of-firefighters-battle-blaze-at-incinerator-plant-in-dickerson/>

Two months later a similar fire occurred in a Covanta incinerator in Lorton, VA.

<https://www.wusa9.com/article/news/local/lorton-incinerator-fire-causes-regional-concern/65-397053209>

Recommendation: Based on a history of incinerator fires, the air quality permit should list "accidental fire" as a significant activity and must require Covanta Marion to have adequate fire suppression capacity and a fire emergency plan in place to immediately curtail such a fire. Furthermore, the DEQ should require that Covanta Marion carry adequate insurance to cover damages in the case of a fire and that they be held liable for resulting damages to firefighters and the surrounding community.

**8. Fly Ash Toxicity:** Since fly ash containing significant amounts of toxins is transported from the facility to an ash pile or landfill in a wetted condition and the permit appears to only deal with leakage from the ash transport vehicles when they're on the facility grounds, it seems prudent to also require routine testing along the relevant roadways for deposition of toxins from fly ash particles that might seep out of the vehicles with some of the liquid in the wetted ash. Even though only minute quantities might leak during a given trip, thousands of trips could allow accumulation of significant amounts that could then be breathed by other persons using those roadways. It would be prudent to mitigate the possibility of leakage or escaped ash particles with a lined truck compartment.

Recommendation: The DEQ should require the trucks transporting ash to have a lined compartment to prevent fly ash leakage and test for toxins along the roadways used.

**9. Protecting Public Health from mercury, sulfur dioxide and hydrogen chloride emissions:** Conditions 20, 21, and 22 for mercury, sulfur dioxide, and hydrogen chloride, respectively, should not include the words "whichever is less stringent". Under certain conditions when the currently allowable percentage of emissions of the chemical in the inlet gas stream (e.g., 15 percent of the potential mercury emission concentration) exceed the allowable numerical limit (e.g., 0.050 mg/dscm for mercury), then the actual quantitative limit of the chemical has been de facto raised above the currently allowable numerical limit (of 0.50 mg/dscm in the case of mercury and similarly for sulfur dioxide and hydrogen chloride), which is not acceptable. The facility should be limited by BOTH the relevant numerical amount as well as the relevant percentage reduction. If OARs must be changed to allow this to happen, then the relevant OARs should be changed. The health

of the people downwind from the facility should not be subject to the vicissitudes of the concentration of chemicals “in the inlet gas stream”. Rather, the facility operators should ensure that the concentrations of chemicals in the inlet gas stream stay below levels that would produce unsafe levels of emissions.

Recommendation: The wording for those conditions should be changed as follows:

*“Mercury*

*20. Mercury emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 0.050 milligrams per dry standard cubic meter (0.000022 gr/dscf) AND MUST NOT EXCEED 15 percent of the potential mercury emission concentration (85 percent reduction by weight), corrected to 7 percent oxygen. [OAR 340-230-0310(3)(c)].*

*Sulfur Dioxide*

*21. Sulfur dioxide emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 29 parts per million by volume AND MUST NOT EXCEED 25 percent of the potential sulfur dioxide emission concentration (75 percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis). Compliance with this emission limit is based on a 24-hour daily geometric mean.*

*[OAR 340-0230-310(4)].*

*Hydrogen Chloride*

*22. Hydrogen chloride emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 29 parts per million by volume AND MUST NOT EXCEED 5 percent of the potential hydrogen chloride emission concentration (95 percent reduction by weight or volume), corrected to 7 percent oxygen. [OAR 340-0230-0310(5)].”*

**10. Require Continuous Emissions Monitoring:** Several of the preceding requests for changes in the facility’s air quality permit would be better addressed by simply requiring the installation of continuous emissions monitoring equipment for toxins, as is currently done for similar facilities in countries all over the world. DEQ should pursue whatever law changes or federal permissions are required to make this happen and then make the installation and operation of this equipment part of the incinerator’s air quality permit requirements.

Recommendation: The installation and operation of continuous emissions monitoring equipment for toxins must be a standard requirement of this air permit.

**11. Incorporate Cleaner Air Oregon rules immediately:** Page 11 of the appended Review Report says the permit will be modified to incorporate the Cleaner Air Oregon rules (OAR 340 Division 245) once the appropriate analysis has been completed. Based on the evidence that the incinerator emissions present a burden of air toxic exposure for

communities of color and low-income residents downwind of the facility, we request that Cleaner Air Oregon hazardous index and cancer benchmarks be added to the permit as soon as possible. The DEQ is encouraged to recognize and act to minimize the air toxic impacts to nearby vulnerable communities. In doing so, the measurement of actual emissions of toxins should not be based only on annual stack tests that are then “modeled” to simulate the dispersion of the toxins in the surrounding communities. There should be “on the ground” testing that includes such things as moss tests (as were done around the art glass factories in Portland), air monitoring tests outside the perimeter of the incinerator property, measurement of bioaccumulation of toxins in fish and/or other animals that live downwind from the incinerator (especially mercury -- and dioxin, if possible), and such other tests that would give a true estimate of the actual health effects on people who live downwind from the incinerator.

Recommendation: Apply Cleaner Air Oregon requirements in the new permit as soon as possible and specify their inclusion as a requirement of the new permit,

**12. Covanta Marion is a Medical Waste Incinerator:** Although the Covanta Marion incinerator does not currently qualify as a “medical waste incinerator” (by burning at least 10% medical waste per EPA) because only 6.71% of the waste burned there in the past three quarters was medical waste (per a communication from DEQ staff), it seems counterintuitive that this incinerator is not held to the stricter standards that EPA imposes on “large new medical waste incinerators.” Per medical waste incinerator emissions standards information contained in DEQ communications, this incinerator would already have exceeded some of those standards (for sulphur dioxide, carbon monoxide, nitrogen oxides, cadmium, lead, and mercury) during at least some of the recent past source tests. We believe EPA and DEQ should consider the health of people who live downwind from this waste incinerator to be just as important and fragile as the health of people who live downwind from a medical waste incinerator. We want the emission limits to be at least as strict as those for a large new medical waste incinerator. Marion County Commissioners already signed a new contract in September 2019 allowing Covanta Marion to burn up to 13,500 tons of out-of-state medical waste annually, which is a 2,500-ton increase above what was already being burned from out-of-state and in addition to in-state medical waste of more than 1,200 tons annually. The incinerator is well on its way toward the 10% level of medical waste incineration (about 9% if it burns 13,500 tons of out-of-state medical waste on top of in-state medical waste), and it is illogical to assume that its medical waste emissions suddenly become more dangerous *only* as it actually reaches that arbitrary 10% level.

Recommendation: Delay or do not approve a new permit for Covanta Marion until DEQ applies the federal standards of a new medical waste incinerator to the incinerator because, based on recent increases, the incinerator is already emitting toxins similar to a medical waste incinerator (with the same kinds of health effects) and could easily exceed the arbitrary 10% level of medical waste during the duration of this permit.

In conclusion, we ask that the DEQ **not approve** the Air Quality permit for Covanta Marion until all the conditions outlined here are addressed and remedied in order to protect public health and air quality for nearby communities.

Signed by the Following Oregon Organizations:

Lisa Arkin, Executive Director  
Beyond Toxics



Kathryn Salzmänn, Member  
Eastside Portland Air Coalition



Laurie Daugherty  
350Salem



Mary Peveto, Executive Director  
Neighbors for Clean Air



Reyna Lopez, Executive Director  
PCUN



## LUTTRELL Suzy

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**From:** Cayetana Tabullo <cayetanatabullo@gmail.com>  
**Sent:** Monday, November 18, 2019 4:30 PM  
**To:** LUTTRELL Suzy  
**Subject:** Covanta Marion Incinerator Air Quality Permit Testimony, Permit Number 24-5398-TV-01

I read with shock and dismay that the draft permit requested by Covanta increases the allowable annual emissions of fine and small particulate matter. Not only are these to increase, but in addition, this draft permit would also allow an increase in greenhouse gas emissions. This facility has been allowed to continue operating by the state of Oregon without a valid air quality permit since April 1, 2017, without consultation of the surrounding community or an opportunity to discuss the adverse health impacts, which are many and well-known, in regard to persistent toxic pollutants, present in such an operation.

The Covanta incinerator is located just up the road from where I reside. As a person of color living in the northeast section of Salem, I have to contend daily with the terrible air quality that results from this garbage burner. My daily life is impacted by the toxic emissions from this aging incinerator. I often wear a mask when I am outside due to the burning sensation in my nose and throat as I breathe. I rarely sit outside on my deck, or open my windows, because the prevailing air currents make it impossible to enjoy any semblance of clean air at my home because of the extremely unpleasant ambient air quality that originates from this monstrosity. I now have chronic congestion, an impaired sense of smell and respiratory issues that I did not have when I first came to Oregon. If I would have known that this plant was down the road when I purchased my home in Salem, Oregon, I would have gone elsewhere to enjoy a healthier environment with improved air, soil and water quality, in addition to enhanced peace of mind.

Northeast Salem is predominantly low-income and my community has a higher percentage of communities of color than in other areas of Marion County. We are not only a frontline community that experiences a higher impact from the daily toxic emissions from this facility, we also have less disposable income to hold our lawmakers accountable to consulting the community instead of continuing to favor this multinational corporation with a troubling history of polluting around the world. I would like to know exactly the quantity of these toxic chemicals I am ingesting every day of the year from this old garbage burner.

In this area, we have no continuous monitoring of toxins that this facility generates constantly, such as dioxins, the most toxic chemicals known to mankind. In addition to the assaults on our air and water perpetrated by this incinerator, we also are a captive population to the arsenic, nickel, PCB's, hydrogen fluoride, sulfur dioxide, hydrogen chloride, lead, cadmium, mercury, dioxins, furans, etc., that are emitted every day of the year from this multinational corporation's cash cow. I seriously believe I have the right to know what toxins I, and my fellow community members, are absorbing every day by living in this area, and how contaminated the soil and water are by this incinerator. A comprehensive evaluation should be conducted by an independent third party, with input from the community, that studies the air, water and soil for toxic and persistent air pollutants, and how far these disperse into the environment. Oregon DEQ should hold a public hearing with the surrounding community regarding the Covanta incinerator, to discuss the health risks involved by living in the area, and other options for alternatives to burning garbage, such as zero waste models and landfills.

This is an environmental justice issue, and you cannot, in good conscience, continue to ignore this ongoing injustice. This facility is also the number one emitter of greenhouse gases in Marion County and has the dubious distinction of being the number twenty generator of these gases in the state of Oregon. Certainly, this is an issue that needs to be addressed, given the ongoing and worsening consequences of catastrophic climate disruption. It



is also included by DEQ among the twenty most toxic industries in Oregon. Also, according to the Robert Wood Johnson Foundation, Marion county has the worst air pollution in Oregon, when the density of particulate matter in the air is measured.

You need to deny this application for Marion Covanta until you seriously consider alternatives to this present situation that only benefits a multinational corporation and whatever other arrangements this corporation has made with our systems of governance at the expense of the community at large. The Oregon DEQ and the Marion County Commissioners have the duty to govern with all of their constituents in mind, and to be representing them to promote the health, safety and well-being of the community at large. Oregon DEQ's negligence of failing to regulate this multinational corporation's environmental impacts and Oregon's apparent corporate capture is indicative of the dysfunctional nature of our systems of governance, that favor corporate money over transparency and environmental integrity.

Pamela S. Vasquez

3668 Silverstone Dr. NE

Salem, OR 97305

cayetanatabullo@gmail.com

(503) 362-0489

## LUTTRELL Suzy

---

**To:** Deborah Patterson  
**Cc:** Andes Gary  
**Subject:** RE: Public Comment re: Covanta Incinerator

Ms. Patterson,

Thank you for your comments. I have copied the permit writer, Gary Andes.

Sincerely,

Suzy Luttrell  
AQ Permit Coordinator  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302  
503-378-5305  
[luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From:** Deborah Patterson <debpatersonhome@gmail.com>  
**Sent:** Monday, November 18, 2019 3:07 PM  
**To:** LUTTRELL Suzy <Luttrell.Suzy@deq.state.or.us>  
**Subject:** Public Comment re: Covanta Incinerator

Dear Ms. Luttrell,

As someone who drives by the Covanta Incinerator several times a week, and who lives within about 10 miles of the facility, I would like to comment on the proposed changes to the DEQ Air Quality Permit for the Covanta Incinerator at Brookings.

First, these proposed changes would INCREASE the amount of greenhouse gases which would be allowed to be emitted, as well as INCREASING the allowable tonnage of small and fine particulate matter allowed to be emitted. The former contributes to global climate change, and the latter exacerbates respiratory and cardiac conditions. This is moving in the wrong direction on both counts.

In addition, standards must be maintained during times of shutdown - just because a plant is "shut down" doesn't mean that the emissions - sometimes far in excess of normal operations - stop being damaging to the environment and human (and animal) health.

With the risk of fire, I urge DEQ to require Covanta to have adequate fire suppression equipment and insurance to cover any losses to the facility and neighboring homes and businesses should a fire occur. In addition, the DEQ should require Covanta to install and operate continuous emissions monitoring equipment for toxins, which is currently required by other facilities.

And finally, I would urge the DEQ to tighten the allowable emissions standards moving forward to help Oregon move closer to cleaner, more healthy air quality.

Sincerely,

Rev. Dr. Deborah Patterson  
Salem, Oregon

## LUTTRELL Suzy

---

**To:** Thomas Ellis  
**Cc:** Andes Gary  
**Subject:** RE: COVANTA MARION INCINERATOR Permit Number 24-5398-TV-01

Good Morning Mr. Ellis,

Thank you, for your comments. I have cc'd Gary Andes, the permit writer.

Sincerely,

Suzy Luttrell  
AQ Permit Coordinator  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302  
503-378-5305  
[luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From:** Thomas Ellis <tiellis@gmail.com>  
**Sent:** Monday, November 18, 2019 10:26 AM  
**To:** LUTTRELL Suzy <Luttrell.Suzy@deq.state.or.us>  
**Subject:** COVANTA MARION INCINERATOR Permit Number 24-5398-TV-01

Dear Ms. Luttrell:

I wish to share my concerns about the above referenced application by Covanta-Marion Incinerator for a 5-year renewal of their Oregon Title V Operating Permit. The emissions allowed under this permit need to be amended because, as it stands, this permit fails to protect our citizens from adverse health effects of pollution and from the long-term existential dangers of continued or increased CO2 emissions.

My specific concerns are as follows:

1. **Particulate Matter and Public Health:** The draft permit increases the allowable particulate emissions from 14 to 16 tons each. These small particles cause a variety of respiratory and other health problems, particularly for older people.
2. **Greenhouse Gas Emissions:** It is outrageous, in a time of proliferating and accelerating dire global impacts from excess atmospheric CO2, that this draft permit actually *increases* allowable greenhouse emissions for Covanta. The Covanta Marion incinerator is already the largest single-facility source of greenhouse gases in Marion County. The DEQ should assume responsibility for our collective future--and those of our children and grandchildren--by mandating *reductions* in greenhouse gas emissions, rather than allowing *increases*.
3. **Accuracy of Stack Testing.** The stack test for dioxins and furans should be run on both combustors every year, rather than only one, since plastic medical wastes--the largest source of these toxic pollutants--could otherwise be shifted to the combustor NOT being tested from year to year.
4. **Startup/Shutdown/Malfunction Emissions:** Condition Number 29 states that the limits/standards in conditions 14, 15, and 17 through 28 do not apply during periods of startup, shut down, and malfunction. The facility should be held to non-harmful emission limits at ANY time that emissions are occurring.

5. **Fire Hazards:** The inclusion of “accidental fires” under the heading “categorically insignificant activities” on page 9 of the appended Review Report vastly understates the danger of a significant fire in the waste mixing pit (outside the controlled incinerator). Large quantities of toxic emissions would spread during such an event, especially if the pit contained significant quantities of chlorine containing material, such as PVC. This is categorically significant!

Please require that Covanta make these suggested emendations (and others detailed in the attachment) to their permit applications. If you do not do so, you will violate your public trust as stewards of environmental quality for Oregon, now and in the future. We are counting on you to do your job: to protect our public health and to do your part in reducing, rather than increasing, the global carbon emissions that imperil our future.

Sincerely,

Thomas I. Ellis, Ph.D.  
4553 Fir Dell Dr SE  
Salem, OR 97302

## **LUTTRELL Suzy**

---

**To:** Sarah Deumling  
**Cc:** Andes Gary  
**Subject:** RE: permit # 24-5398-TV-01

Good Morning Ms. Deumling,

Thank you, for your comments. I have forwarded this email to Gary Andes, the permit writer.

Sincerely,

Suzy Luttrell  
AQ Permit Coordinator  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302  
503-378-5305  
[luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From:** Sarah Deumling <sdeumling@gmail.com>  
**Sent:** Monday, November 18, 2019 9:19 AM  
**To:** LUTTRELL Suzy <Luttrell.Suzy@deq.state.or.us>  
**Subject:** permit # 24-5398-TV-01

Suzy Luttrell, Permit Coordinator  
Oregon Department of Environmental Quality  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302

**Re:COVANTA MARION INCINERATOR AIR QUALITY PERMIT TESTIMONY**  
**Permit Number 24-5398-TV-01**

**As a regular informed and concerned citizen my preference would be to shut down the Covanta Incinerator due to the fact that it is the largest GHG emitter in Marion County. We are in a time of increasing awareness of the threats of climate change due to such emissions and most of us are committed to reducing our emissions on every front. I can (and do) reduce my own emissions but only those higher up, like you, can make the bigger difference. Any permit should reduce (not increase) Covanta's allowable emissions in every category. The cost of not doing this will be much greater before many years pass and we have increased health issues.**

**I would urgently request that DEQ help Marion County and the City of Salem find and implement ways to reduce the volume and toxicity of our waste stream. This is such a low cost, relatively straight forward way for both individuals (families) and businesses to make a huge difference. By being careful how and what I purchase I am down to one brown paper bag (regular grocery store size) every 3 months of garbage that cannot be reused or recycled. No noticeable impact on my life style.**

**Thank you for your work but for the sake of future generations please be braver and stricter in enforcing existing regulations and advocating for new climate friendly policy. If we don't get a handle on this very soon none of the other issues we worry about will matter.**

**Thank you,  
Sarah Deumling  
2667 Orchard Heights Rd.  
Salem OR 97304**

## LUTTRELL Suzy

---

**From:** Damon Motz-Storey <damon@oregonpsr.org>  
**Sent:** Monday, November 18, 2019 5:05 PM  
**To:** LUTTRELL Suzy; Andes Gary  
**Subject:** 125 Health Professional Comments Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal  
**Attachments:** 125 Oregon PSR Member Comments on DEQ Covanta Air Permit Renewal.pdf

Dear Ms. Luttrell and Mr. Andes,

Please find attached a PDF of 125 comments from Oregon Physicians for Social Responsibility members Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal

Please confirm receipt of this email and document.

Regards and thanks,  
Damon

--

Damon Motz-Storey  
Healthy Climate Program Director  
Oregon Physicians for Social Responsibility  
[damon@oregonpsr.org](mailto:damon@oregonpsr.org)  
(303)-913-5634 (cell)  
Pronouns: [he/him/his](#)

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November 18, 2019

Oregon Department of Environmental Quality  
Western Region Air Quality Program  
Attn: Gary Andes  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302

**Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal**

Mr. Andes and the Western Region Air Quality Program Staff:

We, the undersigned health professionals and public health advocates, urge you to deny the proposed Oregon Title V Operating Permit being considered for renewal for Covanta Marion, Inc.

The Covanta Marion waste incinerator is the single largest industrial emitter of Fine Particulate Matter (PM<sub>10/2.5</sub>), Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxides (SO<sub>2</sub>), and other air toxics in Marion County, and is the 20th single largest greenhouse gas emitter in the state of Oregon. The once annual stack testing that occurs at the facility is insufficient for determining whether the facility's air contaminants are in excess of current DEQ limits. Covanta Marion knows when stack testing occurs and is therefore capable of withholding their most toxic combustible waste materials during the time that stack emissions are monitored. Continuous monitoring and alternative means of testing for air contaminants including moss and soil testing are needed to determine whether Covanta Marion is exceeding the pollution levels outlined in this permit. We recommend that this permit be denied until more rigorous monitoring is required in order to obtain a sufficiently accurate understanding of the emissions created by the facility.

In addition, the permit proposes an increase in allowed emissions of Fine Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>), a harmful air contaminant that is dangerous at any level of human exposure. PM<sub>2.5</sub> and PM<sub>10</sub> work their way into the deepest folds of lung tissue causing inflammation and increased risk of pulmonary disease, cardiovascular disease, cancers, and more. No permit allowing an increase in this contaminant should be granted to the facility in order to protect public health in the towns and communities who live, work, and play in the airshed of Covanta Marion, which include a higher than average population of people of color and low-income residents as well as a high population of outdoor farmworkers.

Additionally, major emitters of greenhouse gases like Covanta Marion must have decreasing amounts of permissible carbon dioxide equivalent emissions in order to align with the state of Oregon's goals of statewide carbon reduction. Global climate scientists have announced that worldwide carbon emissions must be decreased by 50% in order to prevent the worst-case scenarios of climate change, which has a myriad of harmful environmental and health impacts

that Oregonians are already beginning to experience. A new permit for Covanta Marion must require the facility to decrease its overall carbon emissions in order to align with Oregon's necessary climate action objectives.

Covanta Marion was flagged as one of the first 20 facilities in Oregon who need to comply with the Cleaner Air Oregon program, which seeks to better understand the air quality impacts of major polluters in the state. The prioritization of Covanta Marion among a list of hundreds of major polluters in the state indicates that this permit should not be granted before conclusive results from the Cleaner Air Oregon process are obtained.

For all these reasons, we request that the Oregon Title V Operating Permit for Covanta Marion, Inc. be denied and the facility be required to comply with more rigorous air quality monitoring, reduce its air toxics and greenhouse gas emissions, and complete the Cleaner Air Oregon before a new permit is granted.

Signed,

First Name:	Last Name:	City:	State:	ZIP Code:
Mick	Alderman	Astoria	OR	97103
Kris	Alman	Portland	OR	97225
Sheri	Ambrose	Lincoln City	OR	97367
Richard	Beam	West Linn	OR	97068
Maureen	Belle	Langley	WA	98260
Dana	Bleckinger	Yachats	OR	97498
Linda	Blue	Milwaukie	Oregon	97222
Patty	Bonney	Portland	OR	97223
Paul	Borcherding	La Grande	OR	97850-0543
Carol	Bosworth	Portland	OR	97222
Christie	Bradley	Hood River	OR	97031
Joseph	Breazeale	Ashland	Oregon	97520
Mike	Brinkley	Eugene	OR	97405
Cecilia	Brown	Portland	Oregon	97214
Walter	Buhl	Wilsonville	OR	97070
Bob	Burch	Coquille	OR	97423
Dana	Button	Portland	OR	97215
Lynn	Cardiff	Salem	OR	97301
Emily	Carl	portland	Oregon	97201

Kathleen	Casson	Portland	OR	97202
David	Chatfield	Portland	OR	97206
Ann	Cobban	Cave Junction	Oregon	97523
John	Cochrane	Canby	OR	97013
Marilyn	Costamagna	Medford	OR	97504
Marilyn	Couch	Portland	Oregon	97210
Nancy	Crumpacker	Portland	OR	97210
Mark	Dariento	Portland	OR	97213
D.	Deloff	Aloha	Oregon	9778
Karen	Deora	Portland	Oregon	97212
Linda	Donnelly	Salem	Oregon	97301
Tom	Doolittle	Ashland	Oregon	97520
Pauline	Duffy	Portland	OR	97202
Danny	Dyche	Hillsboro	Oregon	97123
Pat	Edley	Nehalem	Oregon	97131
Lynn	Edwards	Portland	OR	97214
Catherine	Ellison	Portland	OR	97205
Cynthia	Enlow	Albany	OR	97321-1176
Cheryl	Erb	Salem	OR	97301
Patricia	Gayle	West Linn	OR	97068
John	Gillette, M.D.	Portland	Oregon	97209
Monica	Gilman	Estacada	OR	97023
Anne	Goldfeld	Beaverton	OR	97006
Andy	Harris	Portland	OR	97227
randy	harrison	Eugene	OR	97402
Joanna	Hatfield	Portland	OR	97221
Annabelle	Herbert	Portland	OR	97219
Emily	Herbert	Portland	Oregon	97232
Mani	Homayoun	Portland	OR	97229
Rose	Hope	Silverton	OR	97381
karen	horton	Independence	OR	97351
Jay	Humphrey	Estacada	OR	97023
Keith	Iding	Portland	OR	97232
Meg	Jefferson	Ashland	Oregon	97520

David	Johnston	Portland	Oregon	97213
Martin	Jones	Eugene	OR	97403-2111
Frank	Jones	Talent	Oregon	97540
Alan	Journet	Jacksonville	Oregon	97530-9342
Janet	Jump	Portland	OR	97212
Robert B.	Kaplan	Port Angeles	WA	98362
Robert B.	Kaplan	Port Angeles	WA	98362
dorinda	kelley	portland	OR	97213
Laurie And Dave	King	Portland	OR	97203-5316
Susan	Koger	Salem	OR	97302
Cheryl	Laos	Portland	Oregon	97202
Kelly	Larkin	Portland	OR	97223-7925
Andrea	LePain	Portland	Oregon	97283
Beth	Levin	Portland	OR	97213
Suzanne	Lichau	Yachats	OR	97498
Karla	Long	Albany	OR	97321
Ellen	Maddex	Eugene	OR	97403
Maxine	Martinie	Ashland	OR	97520
Marianne	Mauldin	Portland	Oregon	97211
Nancy	Mauter	Lebanon	Oregon	97355
Gary	McCuen	Salem	Oregon	97302
Annie	McCuen	Salem	Oregon	97302
Sarah	McKenzie	Portland	Oregon	97214
Mona	McNeil	Vancouver	Washington	98686
Lluvia	Merello	Portland	OR	97218
Regna	Merritt	Portland	OR	97210
Christopher	Michaels	Eugene	OR	97402-4733
Mary-Kay	Michelsen	Ashland	OR	97520
Edith	Montgomery	Ashland	OR	97520
Dana	Mozer	Portland	Oregon	97227
Mary	Neuendorf	Salem	OR	97304
Kelly	OHanley	Portland	OR	97213
gail	ohara	Portland	OR	97213
Bonnie	Olin	Junction City	OR	97448

Dale	Oller	Portland	OR	97221
donald	orwick	Salem	Oregon	97302
Kristina	P	Portland	OR	97211
Mary	Peterson	Newport	Oregon	97365
Janna	Piper	Portland	OR	97293
Leslie	Pohl-Kosbau	Portland	Oregon	97219
Steven	Prince	Eugene	OR	97405
Melissa	Rehder	Portland	OR	97206
William	Risser	Portland	OR	97215
Harriet Edith	Roberts	Eugene	Oregon	97403
Brent	Rocks	Portland	Oregon	97201-6132
Laura	Rogers	Portland	OR	97202
Anita	Runyan	Eugene	OR	97403
Dave	Ruud	Portland	OR	97231
Robert and Dolores	Scheelen	Medford	OR	97504
donald	schuchert	NORTH BEND	OR	97459
Louise	Shawkat	Ashland	Or	97520
Ian	Shelley	Portland	Oregon	97225
Elizabeth	Sheppard	Portland	OR	97202
Dean	Sigler	ALOHA	OR	97003
Elizabeth	Somer	Salem	Oregon	97317
Renee	Stringham	Portland	Oregon	97201
Diana	Talcott	Portland	OR	97202
Lauren	Thompson	Portland	Oregon	97206
Debby	Vajda	Corvallis	OR	97333
Natalie	Van Leekwijck	Beaverton	OR	97005
Kelly	Vogel	Portland	Oregon	97232
Marie	Wakefield	Newport	OR	97365-9519
Dana	Weintraub	Beaverton	OR	97003
Steve	Weiss	Portland	OR	97202
Jeffrey	White	Forest Grove	OR	97116
Genevieve	White	Welches	OR	97067
K.	Whitehead	Portland	Or.	97202
Judy	Wilder	Portland	OR	97239

[illegible]

[illegible]



[illegible]




## LUTTRELL Suzy

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**From:** Damon Motz-Storey <damon@oregonpsr.org>  
**Sent:** Monday, November 18, 2019 4:59 PM  
**To:** LUTTRELL Suzy; Andes Gary  
**Subject:** Comments Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal  
**Attachments:** Oregon PSR Comments on Covanta 2019 Air Quality Permit.pdf

Dear Ms. Luttrell and Mr. Andes,

Please find attached a PDF of comments from Oregon Physicians for Social Responsibility, PCUN, OPAL Environmental Justice Oregon, Neighbors for Clean Air, 350 PDX, 350 Salem OR, and the Global Alliance for Incinerator Alternatives regarding Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal.

Please confirm receipt of this email and document.

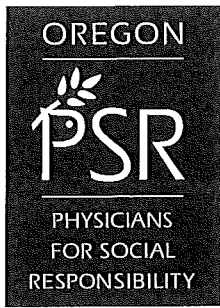
Regards and thanks,  
Damon

--

Damon Motz-Storey  
Healthy Climate Program Director  
Oregon Physicians for Social Responsibility  
[damon@oregonpsr.org](mailto:damon@oregonpsr.org)  
(303)-913-5634 (cell)  
Pronouns: he/him/his

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November 18, 2019

Oregon Department of Environmental Quality  
Western Region Air Quality Program  
Attn: Gary Andes  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302

**Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal**

Mr. Andes and the Western Region Air Quality Program Staff:

Oregon Physicians for Social Responsibility ("Oregon PSR") and the undersigned organizations respectfully submit these comments in response to the Oregon Department of Environmental Quality ("DEQ") call for public comment on Covanta Marion Inc's ("Covanta") Proposed Air Quality Permit Renewal.

Guided by the values and expertise of medicine and public health, Oregon PSR works to protect human life from the gravest threats to health and survival. We are an organization of over 2,000 health professionals and public health advocates across the state working collaboratively with community partners to educate and advocate for societal and policy change that protects human health at the local, state, national and international level.

In addition, the following organizations have also signed onto these comments and will be represented jointly as "Oregon PSR" in the body of these comments: PCUN

(Pineros y Campesinos Unidos del Noroeste), OPAL Environmental Justice Oregon, OPAL Environmental Justice Oregon, 350 Salem OR, 350 PDX, Neighbors for Clean Air, and the Global Alliance for Incinerator Alternatives (GAIA).

Scientific and policy review indicates that the Covanta Marion, Inc. waste-to-energy municipal trash incinerator, represents a substantial short and long term risk to the public health. Oregon Physicians for Social Responsibility (Oregon PSR) notes further that the facility has been operating without a current air quality permit since April 2017. A great deal of uncertainty exists regarding the emission, deposition and adverse effects of toxins associated with Covanta. A more comprehensive evaluation of Covanta Marion toxic emissions is expected through the Cleaner Air Oregon process in 2020. Therefore, Oregon PSR recommends that the Oregon Department of Environmental Quality (DEQ):

- Deny Covanta's air quality permit unless and until a credible and comprehensive evaluation demonstrates that the facility does not represent a significant public health risk to the host community and is not a net contributor to greenhouse gas emissions (GHG) as compared to alternatives for waste disposal and energy generation.
- Conduct an evaluation by disinterested third party evaluators that includes minimally:
  - A study of ambient air, water, and soil quality for all of the criterion air pollutants and significant hazardous air pollutants associated with incinerators.
  - A comprehensive Health Risk Assessment (HRA) for exposed populations within a 10 km radius, to include an evaluation of vulnerable populations
  - Dispersion modeling to establish how far pollutants are likely to spread into the environment.
  - A greenhouse gas lifecycle analysis for Covanta and alternatives, including landfill and zero waste options.
- Conduct a public hearing about Covanta Marion in the local community.

Oregon PSR bases these recommendations on the following findings:

- Toxic Emissions: Covanta Marion is one of the top 20 polluters in Oregon, emitting dozens of toxins known to be detrimental to human health and the environment.

- Aging Facility: Facilities built before 1995, like Covanta, emit more toxins over time and US Environmental Protection Agency (EPA) rules permit aging facilities to emit higher levels of toxins.
- Greenhouse Gas Emissions: Substantial scientific evidence exists that waste incinerators are net contributors to GHG emissions in excess of options for both trash disposal and energy generation.
- Emissions Monitoring: Stack emissions are inadequately monitored and actual concentrations of toxins in ambient air, water or soil quality have never been measured.
- Environmental Protection Agency Standards: EPA rules governing municipal waste incinerators are not based on best available technology, do not regulate a host of known toxins, and fail to take into account other factors such as simultaneous toxic exposures.
- Environmental Justice: A comprehensive Health Risk Assessment (HRA) of the host community has never been performed, nor has the community been allowed any meaningful input. Evidence suggests that significant at-risk populations reside in the vicinity of the incinerator.
- Regulatory Failure: A substantial history exists of regulatory failure at DEQ including reliance on proprietary interests to conduct performance monitoring rather than disinterested third party entities.
- Adverse Health Effects: Known effects of toxins emitted include carcinogenesis, poor pregnancy and childhood development outcomes, and impairment of lung, cardiovascular, liver, kidney, neurological and endocrine function.

The above findings raise considerable uncertainty regarding the short and long term safety of the Covanta Marion facility and support the view that the facility violates principles of environmental justice and is a major contributor to global warming. Fortunately alternatives exist to incineration. Landfills themselves present environmental concerns. Zero waste options should be more aggressively pursued.

Oregon PSR recognizes that shut down of Covanta Marion would result in the loss of up to 38 jobs, which is itself a public health threat to the community. According to an investigation commissioned by Metro, these are union jobs (Operating Engineers), with average pay and benefits well above the average for the Salem area. (Ollson Environmental Health Management, 2017) Furthermore, according to Covanta Marion, job satisfaction is reportedly high, turnover low, and accident rates well below the national average.

Covanta Marion is yet another example of how polluting industries hold jobs hostage in order to continue befouling the environment and push our communities



closer to climate catastrophe. Neither the market nor the state is prepared to step in and ensure that these workers will transition to equally good jobs without economic loss and with minimal disruption. Oregon policymakers shirk their responsibility to our communities by failing to plan for a just transition for workers like those at Covanta Marion, as the mandate grows to shut down polluting operations that contribute to global warming. Oregon PSR believes we need a Green New Deal in Oregon.

## Toxic Emissions

Covanta Marion is a waste-to energy municipal trash incinerator which also incinerates hazardous medical waste. The energy generated through incineration is sold back to Portland General Electric. Trash incineration is an incredibly toxic process which discharges into the environment a witch's brew of pollutants, (Department of Environmental Quality, 2019) including all six of the US Environmental Protection Agency (EPA) designated "criterion air pollutants": carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. (US Environmental Protection Agency, n.d.) Criterion air pollutants are both common and possess known toxic effects on human health and the environment, including crops, wildlife, vegetation, and the built environment. Some large but unknown number of EPA designated "hazardous air pollutants" are also emitted, including: volatile organic compounds, acid gases, heavy metals, and dioxins/furans, all of which are hazardous to human health.

Toxins are released into the environment through the stacks, but are also present in the combustion residue. This includes the bottom ash and the heavily contaminated fly ash, which are trucked to a landfill for disposal. According to the EPA the amount of ash generated ranges from 15 to 25% by weight of the total waste processed. (US Environmental Protection Agency, n.d.) It is a fallacy to assume that toxins are simply burned away. They are not. One way or another they are deposited into our environment. Worse, the incineration process actually creates pollutants not already present in the trash by burning organic material with various chemicals or plastics. These include the highly toxic and persistent dioxins and furans.

Pollutants from combustion find their way into our agricultural products, our drinking water, and other foods, like fish and shellfish. Many of the pollutants can persist in the environment for years or decades and can spread or be distributed over a wide area through bodies of water, wildlife migration, distribution of agricultural products and other processes. (Committee on Health Effects of Waste Incineration, 2000) Some of these toxins bioaccumulate, which means that neither humans nor animals can rid their bodies of the toxins and they build up over time in bones or internal organs.

The adverse health effects of these toxins are numerous and include cancer, growth and development problems, and deleterious effects on every single bodily organ

and system. (See below for a comprehensive assessment of adverse health effects and further references.)

DEQ has designated Covanta Marion as one of the twenty most toxic industries in the state and has scheduled Covanta for a more comprehensive assessment in 2020 under Cleaner Air Oregon mandates. By comparison, not one landfill in Oregon is among the top 40 polluters in Oregon. (Department of Environmental Quality, 2019)

(For more on the compromised process of Cleaner Air Oregon see below under Regulatory Failure.)

### Aging Facility

In May of 2019 Covanta testified before the Oregon State Senate Rules Committee in a failed bid to become eligible for Renewable Energy Credits (REC). The Covanta representative testified that: "The facility is of an age that it needs maintenance and improvements which are planned over the next several years. These investments are necessary for the continued operation of the plant and the REC revenue is essential to pay for this work. To complete this essential work without REC revenue, Covanta would need to more than double the cost of disposal services it provides to Marion County.... [or] the facility would close." (Covanta, 2019)

Covanta Marion, which went online in 1987, represents an older generation of waste-to-energy facilities, which are known to emit more toxins over time. However, in lieu of shut-down or upgrading, aging waste incinerators, like Covanta, can continue to operate legally under EPA rules, which simply hold aging facilities to lower standards. Emissions at Covanta are subject to EPA standards for "existing" (operational prior to 1995) facilities, which are far lower than those for new facilities. (US Environmental Protection Agency, 2006). This is in contrast to standards in the European Union, which are based on the best available technology and apply to all facilities, existing or new. (European Commission, 2014)

According to Covanta's own numbers, emissions at the facility have met or exceeded EPA standards for existing incinerators and in some cases, for new facilities. But this should not reassure the public. As emissions increase for the facility, which they will, the lower standards can be applied and the plant can continue to operate legally. Because of this, Covanta has no incentive to invest in expensive upgrades without public subsidy.

In fact, for the current permit, allowable limits for particulate matter have been increased, based on the fact that emissions at the plant have increased. (Department of Environmental Quality, 2019) With this permit, Covanta would be allowed to emit higher volumes of particulate matter, cadmium, lead, hydrogen chloride, dioxins/furans, and nitrogen oxides than a comparable facility built after 1995. The health impacts of these

air contaminants have serious impacts on human health that are detailed in this document under “Adverse Health Effects.” It should be noted that no safe levels exist of exposure to particulate matter (Di, 2017) or to lead (World Health Organization, 2019).

### Greenhouse Gas Emissions

Whether trash incinerators are bigger contributors to greenhouse gas (GHG) emissions in comparison to landfills or to energy production from coal, oil, and gas has generated considerable scientific controversy. As recently as 2016, the EPA claimed that burning trash will “reduce the amount of [GHG emissions] in the atmosphere compared to landfilling.” (Maize, 2016)

Covanta, likewise, testified in May of 2019 that waste-to-energy facilities “reduce GHG emissions by avoiding landfill methane, displacing fossil-fuel fired electricity, and recovering metals for recycling ... Scientists from the National Renewable Energy Lab, or NREL, concluded ‘Life cycle assessment studies published in the literature have generally been consistent in suggesting that MSW combustion is a better alternative to landfill disposal in terms of net energy impacts and CO<sub>2</sub>-equivalent GHG emissions.’” (Covanta, 2019)

The NREL paper referred to in their testimony, however, was quite explicitly *not* about aging facilities like Covanta. It reads: “Compared to WTE [waste-to-energy] facilities of the 1970s and 80s, WTE is now a refined, clean, well-managed application for energy production.” (Funk, Kip, et al, 2013) Covanta’s testimony, then, cannot be viewed as other than an attempt to obfuscate.

Yet another and even more significant problem exists in Covanta’s assertion that trash incinerators generate fewer greenhouse gases than landfill options. To evaluate GHG emissions one must conduct a complex calculation called a lifecycle assessment or analysis (LCA). For trash incineration this means counting not just stack emissions, but all greenhouse gases generated, from how the waste is collected and transported, what is recycled and how, and the final disposition of the ash. A lifecycle analysis is necessarily site-specific. Until recently, lifecycle analyses for trash incinerators have been based on a GHG accounting method which has been scientifically debunked.

Both landfills and incinerators generate biogenic GHG emissions through burning of biomass (lawn clippings, wood, food waste, etc.) and anthropogenic emissions through burning human-made products, chiefly plastic. The trash incineration industry and the EPA had long claimed that biogenic GHG emissions from incinerators were carbon neutral, meaning that this share of emissions was entirely offset by natural regenerative processes (like regrowth of trees). Since biogenic GHG makes up about half the total GHG emissions from incinerators, this assumption tilted the calculus substantially in favor of incineration. The National Renewable Energy Lab report cited

by Covanta in their testimony referenced above used a methodology (MSW-DST) which *excludes* the impact of biogenic GHG emissions. (Funk, Kip et al., 2013)

However, in their review of dozens of scientific papers, reports, and EPA documents, the Energy Justice Network demonstrated amply that the science does not support a calculus that excludes biogenic emissions. (Ewall, 2014)

In 2013 the Washington DC appeals court agreed. In a case brought by environmentalists against the EPA and their corporate allies, the court ruled that: “the atmosphere makes no distinction between carbon dioxide emitted by biogenic and fossil-fuel sources.” (United States Court of Appeals for the District of Columbia Circuit, 2013) Several months later the EPA proposed a new rule to reflect the finding of the court. (US Environmental Protection Agency, 2014) This year, 2019, the ruling is reflected for the first time in DEQ air quality standards for incinerators. (Department of Environmental Quality, 2019) However, rather than holding Covanta’s feet to the fire to lower GHG emissions, DEQ simply doubled the annual allowable GHG emissions, in essence, permitting the status quo.

In 2017 Metro Regional Government considered sending Portland area municipal waste to Covanta instead of a landfill. As part of their evaluation, Metro commissioned a Health Risk Assessment (HRA) of each option. (Ollson Environmental Health Management, 2017) As part of that analysis, Ollson conducted lifecycle analyses of GHG emissions of Covanta Marion compared to Metro’s current landfill process. They used two peer-reviewed methods to perform the analysis. Both were developed by the EPA. One was the same MSW-DST method used in the paper cited in Covanta’s testimony.

The findings were equivocal, one slightly favoring Metro’s landfill option, the other Covanta. However, both methods discounted biogenic GHG production. Biogenic emissions at the landfill option considered in this analysis constitute 31% of total GHG emissions while the corresponding fraction for Covanta is 54%. (Department of Environmental Quality, 2017) Addition of the biogenic portion of GHG into either model would most certainly tip the balance in favor of landfills. Of further note is that the landfill option for Salem’s trash, Coffin Butte, reports a biogenic GHG emission fraction of only 15% (not including the Pacific Northwest Generating Cooperative, which generates electricity from landfill gas captured from Coffin Butte).

In 2017 a lifecycle analysis was conducted by Olympia-based Sound Resource Management Group for Covanta Fairfax in comparison to Washington DC landfill options. This evaluation counted biogenic emissions for both. Using data from the EPA, US Energy Information Administration, and Virginia’s DEQ, the study demonstrated that Covanta Fairfax produced significantly more GHG than any of the landfill options considered and more GHG per megawatt hour of energy production by burning coal, oil or gas. (Morris, 2017)

Although landfills are also significant sources of toxic and GHG emissions, they have the advantage over incinerators in that they bury and sequester indefinitely a substantial share of carbon equivalents while incinerators accelerate their release. The problem is plastics, which account for a rising share of waste, according to a study by the Center of International Environmental Law. (Center for International Environmental Law, 2019) This paper reported on a lifecycle analysis of three options for plastic waste disposal—recycling, landfill, and incineration— and concluded that incineration emitted more GHG than landfill by a factor of 15.

In their analysis for Metro, Ollson pointed out that burning plastics is tantamount to burning fossil fuels and that a substantial share of the GHG emissions at Covanta are due to the large volume of fossil-fuel derived plastics in the waste. (Ollson Environmental Health Management, 2017)

Counting both biogenic and anthropogenic emissions, Covanta Marion is already the 20<sup>th</sup> largest emitter of GHG in the state. (Department of Environmental Quality, 2017) Current trends in plastic use and disposal suggest Covanta's share of GHG production in Oregon may well increase over time. Better to bury plastic than burn it. Apparently, this is what Metro decided when it rejected the option of sending Portland's waste to Covanta Marion.

### EPA Standards

EPA standards are problematic in ways other than lax standards for aging facilities. In their comparison study of European Union versus EPA standards for waste incineration, researchers unearthed significant philosophical differences. While the US approach is to balance risk to human health with economic considerations, the European Union seeks to establish the lowest possible exposure limits based on best available technology. (Liacata, 2005) The practice of including economic considerations, which generally means corporate interests, has increased during the current administration. (Buford, 2017)

EPA standards are also based on individual exposure to single toxins at a time, which ignores the effects of combined exposures, which is by far the usual case. For example, particulate matter can serve as the vehicle to carry air-borne carcinogens deep into the lungs. Or one neurotoxin, mercury, worsens the effects of another neurotoxin, lead. Some toxins, for example, particulate matter (Di, 2017) and lead (World Health Organization, 2019) have been shown to have no safe level of exposure. To say that emissions standards are met does not mean that harmful exposure is not happening.

EPA standards for incinerators do not include many of the known toxics emitted. Most of the air toxics regulated for incinerators by the EPA are the so-called hazardous

air pollutants. As early as 2004 air quality experts pointed out that despite the introduction of an estimated 300 new chemicals into US industrial processes per year, no chemicals had been added to the EPA list of HAPs. (National Academies Press, 2004) The list in 2019 is virtually unchanged from the list in 2004. (US Environmental Protection Agency, 2019) What all is rising out of the stacks at Covanta Marion is to some large degree unknown and unregulated. We do know that incinerators emit arsenic, chromium, hydrogen fluoride, nickel, and polychlorinated biphenyls (PCBs). None of these toxics is currently regulated.

### Emissions Monitoring

Air quality standards for incinerators are based wholly on emissions for selected toxins as opposed to actual measurement of concentrations in ambient air, water, and soil. Emission monitoring itself is inadequate. Emissions of carbon monoxide, nitrogen oxides, and sulfur dioxide are monitored by a continuous emissions monitoring system. (Department of Environmental Quality, 2019) Standards otherwise mandate only annual sampling of the remaining toxics, biannually for dioxins/furans. This single sampling is then used to calculate the total annual emissions. Emissions, however, vary from day to day depending on what and how much is being burned. The relationship of this calculated value to actual total emissions is unknown, since the latter is never actually measured.

Furthermore, the annual sampling is conducted by an outside firm hired and supervised by Covanta, with only off-site technical oversight by DEQ. This process provides ample opportunity to cook the books and fails to inspire confidence in the process. Covanta has already demonstrated its willingness to employ outdated science and science that does not apply to its facility in order to further its corporate interests. Consider, in addition, that Covanta asked Ollson, who conducted the Health Risk Assessment for Metro, to modify their modelling assumptions on which Ollson's greenhouse gas lifecycle analyses were based. (Ollson Environmental Health Management, 2017) All of the requested modifications would have favored incineration over landfill. Ollson declined to make the modifications.

Even if one accepts that annual samples conducted by proprietary interests can result in accurate values for total annual emissions, the relationship of emissions to what is actually present in the environment is uncertain. According to a consensus report published by the National Academy Press, dispersion of toxins into the environment depends on a host of factors and although most toxins wind up in air, water or soil within a 10 km radius, some are much more broadly dispersed. (Committee on Health Effects of Waste Incineration, 2000) DEQ has never conducted any testing of

ambient air, water, or soil in the area around Covanta Marion. We simply do not know what and how much is in the environment.

The Health Impact Assessment (HIA) conducted for Metro noted the lack of ambient air quality data for Covanta and recommended, as part of Metro's decision-making process, a baseline air monitoring program for one year involving a "broad suite of chemicals" beyond those currently regulated. The HIA also recommended a detailed air quality dispersion modeling to determine more precisely where emitted chemicals might eventually be deposited into water and soil. (Ollson Environmental Health Management, 2017)

### Environmental Justice

The concept of environmental justice originated with the realization that commercial hazardous waste landfills in the South were located most often (three out of four) in African American neighborhoods. A study in 1987 found that race was the strongest variable in predicting the location of waste facilities. (Bullard & Johnson, 2000) The EPA has since endorsed environmental justice for all communities:

"Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work." (US Environmental Protection Agency, 2007)

Precisely which communities are impacted by toxic emissions from Covanta is unknown, because DEQ has conducted no testing of air, water or soil in the surrounding area. The Health Impact Assessment conducted for Metro states that the highest concentration of pollutants is most likely located within a 1 mile radius of the facility. (Ollson Environmental Health Management, 2017) However, a National Academy of Science Press consensus report notes that the dispersion of toxins into the environment depends on a host of factors and although most toxins wind up in air, water or soil within a 10 km radius, some are much more broadly dispersed. (Committee on Health Effects of Waste Incineration, 2000). Given this lack of certainty about the area impacted by Covanta, we considered the potentially exposed populations to include a 10 km (6.2 miles) radius. Communities within a 10 km radius include Gervais, Woodburn, Keizer, and parts of Salem.

Covanta is located in the unincorporated town of Brooks, Oregon, north and east of Salem in Marion County. The 2019 population of Brooks is 977. The town's economy has traditionally been based on agriculture with NORPAC, a vegetable and fruit food processor, being the largest industrial property in the area. NORPAC, a farmer-owned cooperative in business for more than 90 years, declared Chapter 11 bankruptcy in August of this year. Covanta is the other major industry. Brooks Elementary school, Willamette Valley Christian School, Chemeketa Community College, and Northwest University Salem campus are sensitive locations in Brooks, located within a mile of the Covanta facility.

Gervais, just north of Brooks, population 2,464, has primarily farm or nursery related businesses. Several schools are in Gervais, including Gervais Elementary, Middle and High school as well as the Sacred Heart School, Douglas Alternative School, and Salem Bible College. No heavy industry is located in Gervais.

Woodburn, a rural community located north of Brooks and Gervais, has a population of 25,067, and is the third largest city in the County. The majority of inhabitants identify as Latino, but a significant population of Russian Old Believers also resides there. Numerous schools, churches, a community health center, and assisted living facilities for seniors are located in the town. Amtrak runs through Woodburn but does not stop. There are a number of farms and nurseries in or near Woodburn, but no heavy industry. Woodburn Refuse Disposal Site, a Marion County facility, accepted ash from Covanta Marion until 2015. No data is available on toxic emissions from the ash into the surrounding environment.

The demographic data below compare the various localities in the shadow of Covanta. Brooks and Woodburn, in particular, have a younger population, which is at higher risk of adverse health effects from polluting industries. Compared to the state overall, Marion County and all of the cities and towns nearby have a significantly higher percentage of Latinos as well as persons who speak a language other than English at home. It is well documented that minority populations experience poorer health compared to whites (health disparities), which make them more vulnerable to ambient pollutants.

Demographic Data: U.S. Census Data 2017: (US Census Bureau, 2017)

	Population	Persons < 5	Persons < 21	Persons > 65	Female persons	Hispanic or Latino %	Two or more Races	Persons speaking language other than



								English at home
Brooks	791	10.6%	40.5%	4.3%	44.6%	38.2%	0%	41.7%
Gervais	2,464	5.9%	29.1%	3.0%	45.3%	71.6%	3.6%	60.1%
Woodburn	25,067	7.3%	35.2%	13.9%	51.9%	56.3%	3.4%	57.3%
Keizer	37,910	6.6%	28.6%	16.1%	51.8%	20.3%	7.0%	18%
Salem	154,637	6.7%	29%	13.3%	49.9%	22.4%	7.0%	21.5%
Marion County	315,335	6.8%	29.5%	14.6%	50.2%	26.0%	6.6%	25.1%
Oregon	3,831,074	5.8%	25.3%	16.3%	50.5%	12.7%	4.6%	15.2%

High School graduation rates are lower than the state average in Brooks and even lower in Woodburn and Gervais. Median income is lower than the state average in Woodburn, Gervais, and Salem, but above the median in Brooks and Keizer. The poverty rate is significantly higher in Woodburn and higher in Salem. Of note is the high percentage of mobile home housing in Brooks and Gervais, which may indicate pockets in the communities in which health disparities exist.

Demographic Data: U.S. Census Data 2017: (US Census Bureau, 2017)

	High School Graduation	Median Income	Person < Poverty Level	Unemployment Rate	Home Ownership	Housing units/mobile homes
Brooks	81.4%	\$59,152	15%	0%	70%	44.1
Gervais	75.1%	\$51,841	14.4%	15.3%	80.8%	17%
Woodburn	71.5%	\$47,042	23.7%	6.4%	62%	8.7%
Keizer	89%	\$60,722	13.8%	6.6%	-----	5.5%
Salem	86.7%	\$51,666	16.2%	6.8%	53%	5.1%

Marion County	84.9%	\$53,828	15.9%	6.8%	59.8%	8.9%
Oregon	90.2%	\$56,119	14.9%	6.8%	61.7%	8.2%

The Marion-Polk County Health Assessment of 2019 found that the five leading causes of mortality in the community were: (1) cancer, (2) heart disease, (3) unintentional injuries, (4) stroke, and (5) chronic lower respiratory diseases. The mortality rate in Marion County has been increasing. In general, those who identified as White, non-Hispanic, African American/Black, or American Indian/Alaskan Natives died at higher rates in the community than Asian/Pacific Islanders and Hispanics. The average life expectancy for a newborn in the community was about 80 years, which was similar to the state. Male newborns, along with African American/Black, and White, non-Hispanic newborns, had lower life expectancies than their peers. About 26,600 years of life would be added back to the community each year if premature death before the age of 75 was avoided. (Marion and Polk Counties, 2019)

#### Mortality

	Premature Age-adjusted Mortality*	Age-adjusted death rate**	Child Mortality***	Infant****
Oregon	310	707.0	40	5
Marion County	320	736.6	40	6

\*2013-2015 (Robert Wood Johnson Foundation, n.d.)

\*\* (Oregon Health Authority, 2017)

\*\*\*2012-2015 (Robert Wood Johnson Foundation, n.d.)

\*\*\*\* 2007-2013 (Robert Wood Johnson Foundation, n.d.)

Oregon Vital Statistics provides mortality data only for the cities of Woodburn, Keizer, and Salem, not for Brooks or Gervais. In addition, the mortality data is not age-adjusted, making it impossible to evaluate against overall County or State data.

The Robert Wood Johnson Foundation provides health rankings by county. Of the 35 counties ranked in Oregon, Marion County had an overall health rank of 14, but lower rankings for various health factors and behaviors (21 of 35), social and economic (18 of 35) and physical environment (33 of 35). The incidence of obesity, sexually transmitted infections, and teen births, especially among Latinos is higher than the state overall. There is a higher incidence of children living in poverty and those who qualify for

free or reduced school lunches. Of note is that air pollution is worse in the County as measured by the density of particulate matter in the air.

Selected health indicators: Comparison of Marion County Health with Oregon and U.S. 2015-2017 (Robert Wood Johnson Foundation, 2017)

	Marion County	Top U.S. Performers	Oregon
<b>Health Behaviors</b>			
Obesity	<b>34%</b>	26%	28%
Sexually Transmitted Infections*	<b>514.4</b>	152.8	432.5
Teen Births**	<b>29</b>	14	20
Teen Births—Hispanic	<b>44</b>		
<b>Clinical Care</b>			
Uninsured	<b>9%</b>	6%	7%
<b>Social and Economic factors</b>			
High School Graduation Rate	76%	96%	77%
Children in Poverty	<b>20%</b>	11%	17%
Median Income	<b>56,100</b>	67,100	60,100
Children eligible for free or reduced lunch	<b>64%</b>	32%	51%
<b>Physical Environment</b>			
Air Pollution***	<b>9.1</b>	6.1	7.9

\*Chlamydia cases per 100,000

\*\*Births per 1,000 female population 15-19

\*\*\*Average density of fine particulate matter, micrograms per cubic meter

More recently, the Community Health Assessment for Marion-Polk Counties, completed in 2019, looks at the overall health of the community over the past 5 years. (Marion and Polk Counties, 2019) Relevant findings include an increase in chronic illnesses, including diabetes, obesity and depression. Suicide and suicidality among teens has increased, as well as sexually transmitted infections, including gonorrhea, syphilis, HIV and Hepatitis B. With regard to the social determinants of health, this community struggles with lower educational achievement, higher rates of poverty, especially among children (25% vs. 20% in Oregon), food insecurity, and unaffordable housing. Demographically, there is a higher percentage of youth in Marion County than in the state overall, and persons of Hispanic origin (26% vs. 12%), persons speaking a language other than English at home (25%), and persons with disabilities (15%).

Environmentally, air quality was described as “good” in Marion County for most of the year but diminishes to “unhealthy for sensitive groups” in the late summer because of forest fires. Water quality indicators, however, showed that a lower percentage of community water systems were meeting health standards than the state as a whole and are not meeting the Environmental Protection Agency (EPA) targets.

The Environmental Justice Screening and Mapping Tool (EJSCREEN) was developed by the EPA to assist communities in identifying environmental issues in relationship to at-risk populations. (US Environmental Protection Agency, n.d.) Below is a table from the EJSCREEN for a 6.2 miles radius around Covanta Marion, which corresponds to the 10 km radius where emitted toxins are most likely to be deposited. (Committee on Health Effects of Waste Incineration, 2000)

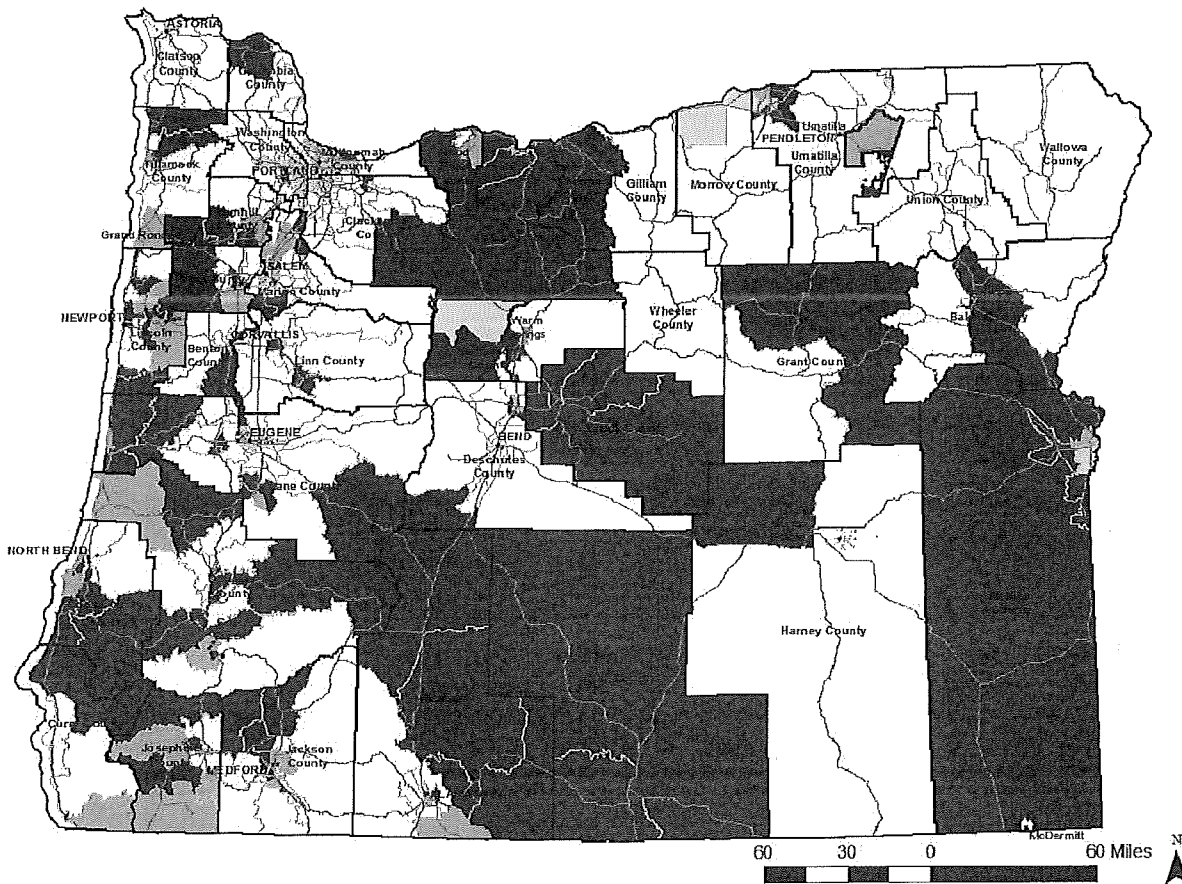
Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
<b>Environmental Indicators</b>							
Particulate Matter (PM <sub>2.5</sub> in $\mu\text{g}/\text{m}^3$ )	7.15	6.63	62	6.6	71	8.3	20
Ozone (ppb)	34.8	34.2	63	35.1	63	43	10
NATA* Diesel PM ( $\mu\text{g}/\text{m}^3$ )	0.461	0.393	59	0.479	50-60th	0.479	50-60th
NATA* Cancer Risk (lifetime risk per million)	30	31	43	31	<50th	32	<50th
NATA* Respiratory Hazard Index	0.47	0.48	42	0.46	<50th	0.44	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	610	480	79	500	77	750	72
Lead Paint Indicator (% Pre-1960 Housing)	0.13	0.25	41	0.23	49	0.28	43
Superfund Proximity (site count/km distance)	0.029	0.083	33	0.13	30	0.13	26
RMP Proximity (facility count/km distance)	1.7	0.78	86	0.65	89	0.74	88
Hazardous Waste Proximity (facility count/km distance)	0.23	1.4	37	1.5	41	4	39
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00078	0.0056	67	31	73	14	65
<b>Demographic Indicators</b>							
Demographic Index	42%	29%	81	29%	80	36%	65
Minority Population	41%	23%	84	27%	79	39%	60
Low Income Population	42%	34%	68	31%	73	33%	68
Linguistically Isolated Population	8%	3%	88	3%	85	4%	79
Population With Less Than High School Education	18%	10%	84	9%	85	13%	74
Population Under 5 years of age	8%	6%	74	6%	69	6%	70
Population over 64 years of age	14%	16%	45	15%	52	15%	50

The EJSCREEN for various environmental indicators shows that the 6.2 mile (10 km) area surrounding Brooks is worse off than most other locales in Oregon for many indicators, including particulate matter, ozone, diesel particulate matter, traffic proximity and volume, wastewater discharge and RMP Proximity. The RMP is the Risk Management Plan (RMP) Rule from Section 112(r) of the Clean Air Act Amendments, which requires EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. The RMP rule requires facilities that use extremely hazardous substances to develop a Risk Management Plan. Covanta Marion is such a facility.

The EJSCREEN for the 6.2 mile (10 km) radius of Brooks puts the demographic index (a combination of percent low-income and percent minority) in the 81<sup>st</sup> percentile for the state, meaning that only 19% of Oregon locales have a larger proportion of low income and minority populations. Each of the demographic subsets of vulnerable populations, with the exception of the elderly, are over-represented in the area of concern around Covanta.

Zapata et al. in their report, "Findings Brief for Equity Considerations for Greenhouse Gas Emissions Cap and Trade Legislation in Oregon," commissioned in 2017 by the Coalition of Communities of Color, Oregon Environmental Council, and Portland State University Institute for Sustainable Solutions, identified communities most vulnerable to climate change. (Zapata, 2017)

They used the criteria of race (non-white), income (below 200% of poverty), education (% over 25 without a high school diploma), unemployment rate (% age >16 not employed), age (% over 65 or less than 10 years of age), cancer risk and respiratory hazard risk. In the map below, blue areas represent the top 50%, green, the top 25% and yellow, the top 10% of census tracts most vulnerable to climate change. From this map, the area of Brooks, Salem, Keizer, Gervais, and Woodburn all fall in the top 25% (green) area of most vulnerable communities to climate change. Greenhouse gases produced by Covanta Marion is not a trivial issue for these communities and must be considered as part of the hazard posed by this plant.



**Figure 1: Top 10%, 25%, and 50% of Census Tracts Most Vulnerable to Climate Change in Oregon.** *GIS data source: US Census Bureau and State of Oregon. Index scores are based on data from: U.S. Census American Community Survey (ACS) 2011-2015 5 year estimates and the National Air Toxics Assessments (NATA) 2011.*

One of the pillars of “environmental justice” is meaningful involvement of all people regardless of race, color, national origin, or income. There does not appear to have been any “meaningful involvement” of the communities impacted or potentially impacted by the pollutants of air, water and soil from Covanta, nor how increased greenhouse gas production and resulting climate warming will adversely affect their health and safety.

#### Summary Findings:

- Brooks and the surrounding communities, including Woodburn, Gervais, Keizer, and Salem have a higher percentage of persons identifying as Hispanic or Latino than the state overall.
- Brooks has a younger population and several schools in close proximity to the Covanta facility. Children are more likely to be adversely affected by environmental pollutants.
- Woodburn, in particular, is a vulnerable community with many health disparities, including a majority Latino population, a majority who do not speak English at home, higher rates of poverty, lower median income, a younger population, and lower high school graduation rates.
- Marion County, overall, suffers from health disparities including higher rates of children living in poverty, obesity, teen pregnancy, especially among Latinos, and sexually transmitted diseases.
- Air pollution is worse in Marion County than the State as measured by the density of particulate matter in the air.
- Water quality indicators showed that a lower percentage of community water systems were meeting health standards than the state as a whole and are not meeting the Environmental Protection Agency (EPA) target.
- These communities are all in the top 25% (green) area of most vulnerable communities to climate change.
- Woodburn's Refuse Disposal Site received the ash from Covanta until 2015. It is unknown to what extent pollutants from this ash have dispersed into the surrounding air, water and soil and remain there.
- There has been no meaningful involvement of these communities to understand and address their concerns about the adverse effects of air, water, and soil

pollutants as well as greenhouse gas emissions from Covanta Marion, Inc. on their health and safety.

### Regulatory Failures

Confidence in the capacity and will of DEQ to protect the public interest against the interests of for-profit enterprise has significantly eroded. Compared to most other states, environmental regulation in Oregon is unduly influenced by corporate interests. (The Oregonian, 2019) Beyond the financial and political constraints imposed on DEQ by a bought-and-paid-for legislature, DEQ itself has cultivated a cozy relationship with industry. (Forbes, 2016) Regulatory failure has been the result.

Most recently, DEQ failed to compel Zenith Energy in Portland to conduct the appropriate and legally mandated emergency drills for crude oil spills and explosions. (Graves, 2019) In 2007, DEQ awarded Bullseye Glass in Portland an improper exemption to air quality regulations, which resulted in neighborhood contamination by arsenic and other pollutants. (Davis, 2016)

The Cleaner Air Oregon legislation itself was strongly resisted by Oregon business (Hester, 2018) and their interests prevailed when the legislature failed to invest DEQ with the authority and means to conduct an independent and credible evaluation. (Coleman, 2018) The public interest is routinely minimized or ignored in a system that privileges corporate over community well-being. Unfortunately, this already calls into question the results of any Cleaner Air Oregon evaluation.

It is expected that Covanta Marion will be “called in” for a comprehensive assessment in 2020 under a Cleaner Air Oregon process that is already under fire for favoring corporate interests. (Coleman, 2018) (Cascadia Times, 2018) (Davis, Cancer risk doubles in industry-backed toxic air plan for Oregon, 2018) (Environmental Justice and Public Health Groups Oppose SB 1541, 2018). Despite an 18-month-long process of stakeholder input processes to build health-protective standards for the Cleaner Air Oregon program, lawmakers passed a bill that set risk action levels at fifty times the no risk level for cancer rates and a non-cancer hazard index of 5 before the program will allow for additional regulations on most existing facilities that have Toxic Best Available Control Technology (T-BACT) or are regulated federally. This includes Covanta Marion. The existing risk action level standards in Cleaner Air Oregon do not go far enough to protect public health and will not result in the level of scrutiny that polluters like Covanta Marion require.

### Health Impacts of Air Pollutants

**Particulate Matter:** Particulate Matter (PM), is composed of very small, solid and liquid particles, formed from the incomplete burning of fossil fuels, such as coal, diesel, gasoline, and biomass. PM<sub>2.5</sub> measures 2.5 microns in diameter or less; PM<sub>10</sub> are



particles 10 microns or smaller. PM consists of a complex mixture of Polycyclic Aromatic Hydrocarbons (PAHs), soot, black carbon, absorbed water, aerosolized sulfuric acid droplets, other acids, nitrogen, sulfur, organic material, metals, and other toxic substances. PAHs are absorbed by the sponge-like particles and carried by them deeply into the smallest compartments of the lung (alveoli) where they gain direct access to the bloodstream and may then contribute to various diseases in organs distant from the lungs, including the fetal placenta. (Oregon Physicians for Social Responsibility, 2015)

PM is associated with a host of adverse health effects including:

#### Cancer

- Increased biological markers associated with risk of lung cancer
- Exposure to ozone and PM correlated with development of and mortality from lung cancer
- Increased oxidative DNA damage predictive of cancer risk
- Increased rates of breast cancer

#### Cardiovascular

- Increased hospital admissions for serious cardiac arrhythmias
- Increased probability of admission for acute myocardial infarction
- Increased ischemic heart disease, arrhythmias, congestive heart failure
- Biomarkers associated with increased cardiac morbidity and mortality
- Increased hospital admissions and death from heart failure
- Increased risk of congenital cardiac anomalies in children

#### Cerebrovascular

- Increased hospital admissions for strokes
- Significant increase in stroke mortality associated with exposure to particulate matter
- Increased risk of stroke associated with combined exposure to particulate matter, black carbon, and nitrogen dioxide
- Increased risk of stroke and death from stroke for post-menopausal women
- Structural brain damage and cognitive deficits in middle-aged and older adults

#### Neurodevelopmental

- Increased incidence of autism spectrum disorder
- Increased incidence of behaviors associated with attention deficit hyperactivity disorder
- Lowered IQ
- Increased behavioral symptoms of anxiety, depression, social problems, rule breaking, and aggression

## Pulmonary

- Decreased lung function
- Inhibited lung development in children and adolescents and measurable airway inflammation
- Increased asthma rates and worsening of preexisting asthma and chronic obstructive pulmonary disease (COPD), resulting in increased hospitalization

## Other

- Long term exposure linked to decreased life expectancy from cardiopulmonary mortality
- Prenatal exposures linked to altered immune system development

(Oregon Physicians for Social Responsibility, 2015)

**Nitrogen oxides (NO<sub>x</sub>):** NO<sub>x</sub> gases react to form smog and acid rain as well as being central to the formation of fine particles (PM) and ground level ozone, both of which are associated with adverse health effects. Some effects of short-term exposure to NO<sub>x</sub> are independent of the effects of many other traffic-related pollutants.

Short term exposure to NO<sub>2</sub> can cause respiratory impairment and asthma exacerbation. Long-term exposure to NO<sub>2</sub> is also associated with respiratory effects, particularly the development of asthma in children.

Short-term exposure to NO<sub>2</sub> may also be associated with:

- cardiovascular effects and
- premature mortality

Long-term exposure may also be associated with:

- cardiovascular effects
- diabetes
- poorer birth outcomes
- premature mortality
- cancer

However, it is uncertain whether NO<sub>x</sub> exposure has an effect on these health outcomes that is independent from the effects of other traffic-related pollutants. It is not clear whether there is an exposure concentration of NO<sub>x</sub> below which effects do not occur. (National Center for Environmental Assessment-RTP Division, 2016)

**Sulfur dioxide (SO<sub>2</sub>):** Exposure to sulfur dioxide affects the respiratory system. High levels of acute exposure cause:

- Burning of the nose and throat
- Breathing difficulties
- Severe airway obstruction

Long-term exposure to persistent levels of sulfur dioxide can affect lung function. Asthmatics have also been shown to be sensitive to the respiratory effects of low concentrations of sulfur dioxide. Long-term studies surveying large numbers of children indicate that children who have breathed sulfur dioxide pollution may develop more breathing problems as they get older, may make more emergency room visits for treatment of wheezing fits, and may get more respiratory illnesses than other children. Children with asthma may be especially sensitive even to low concentrations of sulfur dioxide.

(National Center for Environmental Assessment—RTP Division, 2017)

**Mercury (Hg):** Mercury is a potent neurotoxin, ranking third on the 2011 Agency for Toxic Substances and Disease Registry (ATSDR) priority list of 275 hazardous substances. Mercury concentrates in fetal blood as it crosses the placenta. Neurotoxin effects may be increased by synergistic action when mercury combines with other common environmental toxins (such as lead, manganese, PCBs, pesticides, etc.) which are often present in the bodies of children. Prenatal exposure causes disruption of brain development by inhibiting critical neuronal and glial cell division, global disruption of neuronal migration and by disruption of the endocrine system and is associated with:

- Autism
- Attention deficit hyperactivity disorder
- Smaller cerebellar volume
- Poorer visual recognition
- IQ decline
- Decreased vocabulary
- Decreased visual motor ability
- Decreased general cognition, memory and verbal skills

(Oregon Physicians for Social Responsibility, 2014)

**Arsenic:** Arsenic affects every system in the body. Arsenic is absorbed through the lungs when inhaled. Small particulate matter, acting as a sponge, transports the arsenic compounds and other soluble metals into the smallest chambers of the lung where they can be directly absorbed into the bloodstream.

Recent studies confirm linkages with low dose effects, including cardiovascular effects; increased incidence of metabolic disorders, including diabetes; decreased lung function; impaired immune functions and increased infections.

Arsenic also acts as a generalized neurotoxicant. Effects on the developing fetus, infants, and children at very low exposure levels point to arsenic's role in epigenetic changes in the programming of fetal development and later neurodevelopment. There is also evidence for an endocrine disruption mechanism.

Early life exposures increase risk for:

- Later development of cancer of the liver, skin, bladder and lung; this risk is greater than that of exposure to arsenic as an adult.
- Decreased cognitive ability (IQ); the combination with high levels of lead is particularly damaging
- Birth effects, low birth weight, higher infant mortality and decreased fetal growth
- Increased risk of infection in infants
- Other impaired immune response issues
- Neurobehavioral effects: development of behavioral disorders

(Oregon Physicians for Social Responsibility, 2016)

**Cadmium:** Cadmium is a highly toxic metal with a very long half-life of 20-30 years in humans and accumulates in soft tissues, kidneys, and the liver. Evidence suggests that cadmium affects DNA repair, and cell signaling and control. These effects lead to kidney damage, cancer, mutations, damage to hormone regulating mechanisms, reproductive disorders, and problems with cellular differentiation.

Cancer:

- Bladder
- Breast
- Pancreas

Bone health:

- Exposure to low concentrations of Cadmium is associated with effects on bone, including increased risk of osteoporosis and fractures
- Cadmium was implicated in Itai Itai disease due to industrially contaminated water in people exposed, especially women. They suffered osteomalacia (softening of the bones) and osteopenia (decreased bone mineral content and density)

Neurodevelopmental:

- Children who have higher urinary cadmium concentrations may have increased risk of both acquiring a learning disability and being more likely to receive special education, at exposure levels that were previously considered to be without adverse effects, levels that are common among U.S. children
- 1.53 times higher risk for emotional problems with a twofold increase in cord blood cadmium
- Early-life low-level cadmium exposure associated with lower child intelligence scores

Endocrine/Reproductive and Other Effects

- Cadmium mimics estrogen, so is an endocrine disrupting chemical. It affects male reproduction in animal studies, and causes decreased birth weight in humans.
- Possible effects on cellular aging; cadmium exposure at environmental levels was related to leukocyte telomere length (a marker of cellular aging).

(Oregon Physicians for Social Responsibility, 2105)

**Hydrogen Fluoride** (also known as fluoric acid, hydrofluoride, hydrofluoric acid, and fluorine monohydride): Hydrogen fluoride is a serious systemic poison. It is highly corrosive. Its severe and sometimes delayed health effects are due to deep tissue penetration by the fluoride ion. The surface area of the burn is not predictive of its effects. The systemic effects of hydrogen fluoride are due to increased fluoride concentrations in the body which can change the levels of calcium, magnesium, and potassium in the blood.

Most hydrogen fluoride exposures occur by inhalation of the gas and dermal contact with hydrogen fluoride. Symptoms may be delayed for several days, especially in the case of exposure to dilute solutions of hydrogen fluoride (less than 20%).

Absorption of substantial amounts of hydrogen fluoride by any route may be fatal.

Adverse effects include:

- Severe skin, eye, and mucous membrane irritation
- Respiratory tract irritation and hemorrhage
- Nausea, vomiting, gastric pain
- Cardiac arrhythmia
- Destruction of deep tissues when fluoride ions penetrate the skin
- Hypocalcemia, which leads to tetany, decreased myocardial contractility, and possible cardiovascular collapse
- Hyperkalemia has been suggested to cause ventricular fibrillation leading to death.

(Agency for Toxic Substances and Disease Registry, n.d.)

**Dioxins/Furan and Dioxin-like Polychlorinated biphenyls (PCBs):** The dioxins and furans are not manufactured or produced intentionally but are by-products in the manufacture of other chemicals or products. Dioxins form whenever chlorine-containing compounds are burned or treated with catalysts in the presence of organic material. Prior to industrialization and the introduction of chlorine, dioxin existed naturally only in very small amounts. Today it enters the air from thousands of sources including incinerators that burn medical, municipal, and hazardous waste, chemical processing facilities that use chlorine to make products such as pesticides and PVC

plastic, chlorine bleaching of pulp and paper, manufacturing or processing of certain types of chemicals, such as pesticides, and metal refining and smelting operations. Until banned in 1979, PCBs were manufactured as insulator fluids in heat-exchangers and transformers, as hydraulic fluids, and as additives to paints, oils, and caulks. (Centers for Disease Control and Prevention, 2017)

Airborne dioxin can travel great distances, eventually settling onto soil, plants, and water. Dioxin dissolves readily in oils, fats, and organic solvents but poorly in water and it does not evaporate readily. Since dioxin does not react with oxygen or water and is not broken down by bacteria, it persists in the environment for long periods of time, making it a “persistent organic pollutant.” (The Endocrine Disruption Exchange, n.d.)

Dioxins are a family of 75 chemically related compounds commonly known as chlorinated dioxins. Furans are a family of 135 chemicals. Exposure to both occurs by inhalation, ingestion, and skin contact. Dioxins persist in the environment and most attach to soil and to sediment in water, and bioaccumulate. (Centers for Disease Control and Prevention, 2017) 2,3,7,8-TCDD is the most toxic of the chlorinated dioxins and is a known carcinogen. (National Toxicology Program, 2016)

TCDD and the related PHAHs (polyhalogenated aromatic hydrocarbons) modulate the levels of many hormonal systems. Alteration of hormones has long been known to affect development. Dioxins cause a spectrum of morphological and functional developmental deficits including:

- Fetal death
- Thymic atrophy
- Birth defects (structural malformations)
- Delayed effects on the genitourinary tract
- Adverse behavioral effects
- Developmental delay

Recently, hormonal and neurological abnormalities have been reported in infants from the general population. The complex alteration of multiple endocrine systems is likely associated with the spectrum of adverse developmental effects caused by dioxin and related compounds. (Birnbaum, 1995)

Evidence mounts for other detrimental health effects of dioxins in humans, including diabetes and developmental delays. (DeVito, 2002)

Health effects from PCB exposure include:

- Neurologic disorders
- Cancer
- Liver toxicity
- Immunosuppression

- Endocrine disruption such as low thyroid (which can also affect a developing embryo)
- Impaired reproduction

Prenatal exposure is associated with:

- Neurological impairment
- Learning disabilities
- Poor memory
- Reduced IQ
- Behavioral issues such as poor impulse control and disorganization
- Attention Deficit Hyperactivity Disorder
- Autism

(Oregon Physicians for Social Responsibility, 2014)

### Conclusion

We, the undersigned, respectfully request that DEQ deny this Title V Air Quality Permit Renewal until Covanta Marion has undergone the Cleaner Air Oregon review process. Furthermore, a study of contaminant spread, health impacts, and greenhouse gas emissions should be conducted by disinterested third parties. Finally, a public hearing should be held to receive input from communities impacted by the pollution at Covanta Marion.

Sincerely,

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## COVANTA MARION INCINERATOR AIR QUALITY PERMIT TESTIMONY

Permit Number 24-5398-TV-01

The undersigned organizations and individuals have concerns about the environmental and human health impacts of the Covanta Marion waste incinerator in Brooks, Oregon. Past claims that the incinerator has met emissions standards is not sufficient to alleviate our concerns because those standards were based only on Best Available Control Technology (BACT) and do not limit emissions to levels that scientific data indicate are protective of health. Therefore, we submit the following recommendations.

**1. Particulate Matter and Public Health:** The draft permit increases the allowable annual emissions of small and fine particulate matter from 14 and 12 tons, respectively, to 16 tons each. These small particles are known to cause or aggravate health problems in people who breathe them — especially for sensitive groups such as the elderly and very young. According to the US EPA: "Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:  
--premature death in people with heart or lung disease  
--nonfatal heart attacks  
--irregular heartbeat  
--aggravated asthma  
--decreased lung function  
--increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing."

(<https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>).

Heavy metals and dioxins can attach themselves to fine particulate matter, and in some cases fine particulates are made up of tiny particles of these toxic materials. Such small particles of pollution can penetrate the lungs and enter the bloodstreams of people who inhale them. These toxins cause adverse health effects in exceptionally small quantities.

Recommendation: The DEQ should not allow any increase in particulate matter because of the increased risk of adverse health impacts to people downwind from the incinerator. The DEQ permit should reduce allowable particulate emissions, not allow an increase.

**2. Greenhouse Gas Emission Limits:** The draft permit increases allowable total greenhouse gas emissions to 214,400 tons (194,500 metric tons). However, actual greenhouse gas emissions from the incinerator reported by DEQ from 2014 through 2017 range from a low of 160,517 metric tons of carbon dioxide equivalent in 2016 to a high of 172,780 metric tons in 2014. At these levels, the Covanta Marion incinerator is already the biggest single facility source of greenhouse gas emissions in Marion County. It is counterproductive to allow almost 22,000 additional metric tons of greenhouse gases above the 2014 high when the State has a goal of reducing greenhouse gases overall. Here are the actual emissions Covanta Marion reported to DEQ at the sites linked to this web address (2014 to 2017 Greenhouse Gas Facility Emissions Reports for top Oregon GHG producers):

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<https://www.oregon.gov/deq/air/programs/Pages/GHG-Emissions.aspx>)

2017: 160,844 metric tons

2016: 160,517 metric tons

2015: 168,541 metric tons

2014: 172,780 metric tons

The trend since 2014 is downward.

Recommendation: The DEQ permit should require continued greenhouse gas reductions rather than going in the opposite direction.

**3. Accurate Stack Testing:** The stack test for dioxins and furans should occur for both combustors every year. Now that medical waste can be burned in either combustor, it would be all too easy for the incinerator operators to shift the medical waste to the combustor not being tested for dioxins and furans in any given year and thereby miss an increase in dioxin and furan emissions due to plastics in the medical waste burned by that combustor. Also, by tracking the actual amount of blue bin medical waste and gray bin medical waste being burned in each combustor during stack testing, more data could be collected about the actual effects of medical waste on emissions.

Recommendation: The DEQ must require stack testing for dioxins and furans for both combustors on an annual basis and should delineate incineration of blue bin versus gray bin medical waste to determine how each type of waste could affect the emissions.

**4. Startup/Shutdown/Malfunction Emissions:** Condition Number 29 states that the limits/standards in conditions 14, 15, and 17 through 28 do not apply during periods of startup, shut down, and malfunction. This ignores the fact that the emissions during those periods of upset still enter the lungs of people downwind and affect their health just as surely as emissions that occur during periods of optimum operation. In fact, research in other countries has demonstrated that during these conditions of upset very significant increases in emissions of some of the most toxic chemicals occur. The facility should be held to non-harmful emission limits at ANY time that emissions are occurring. Excluding likely spikes in air toxic emissions during startup, shut down, and malfunction is a left-over concept from before the passage of Cleaner Air Oregon, when state air quality rules were equipment and technology based, and not health-based.

Recommendation: The DEQ must include emissions from periods of startup, shut down, and malfunction in the standards and limits of this air quality permit based on the likelihood that these events will result in spikes in hazardous emissions that constitute a danger to public health.

**5. Medical Waste Record Keeping:** Condition Number 37f states that a performance test report must include the following: "Amount of medical waste burned in the municipal waste combustor unit during dioxin/furan performance testing." Medical waste amounts are similarly required to be reported for condition 70b. These conditions should further specify that the amount of blue bin medical waste versus gray bin medical waste be delineated in

these reports. It would also be appropriate to require that a reasonable representation of a typical amount of these types of medical waste be included in some of the test runs so analysis of test results could indicate the effects of these types of medical waste on emissions, and future permit requirements could be adjusted accordingly (such as when the Cleaner Air Oregon requirements are integrated into the permit).

Recommendation: Delineation of blue bin versus gray bin medical waste going into the incinerator should be recorded all year for all incoming medical waste, and actual spot check verification that boxes labeled as blue bin medical waste truly are blue bin medical waste (especially during stack testing) would also be prudent.

**6. Special Waste Management:** Before granting the facility permission to accept waste under a Special Waste Management Plan as referenced in Item 4 (Fuel) of the Review Report appended to the draft permit, DEQ should have reasonable scientific basis to expect that burning a particular type of special waste will not have deleterious effects on the surrounding community. Although the basis for such permission decisions is not contained within the permit language itself, DEQ should assess whether the addition of a particular type of special waste might cause emissions to exceed Cleaner Air Oregon health risk standards and not just MACT or BACT-based standards. As a hypothetical example, if it were found that the large quantities of netting accepted for incineration from the ocean fishing industry were to contain significant amounts of polyvinylchloride plastics (PVC), DEQ might decline to permit the incineration of that material due to the high likelihood of a significant increase in the emission of dioxins as a result of a significant increase in chlorine in the incinerator fuel. Similar decisions might be made about special waste materials that are found to contain heavy metals. Heavy metals can show up in some of the least expected places, such as certain types of colored cardboard as indicated at this web address (<https://bioresources.cnr.ncsu.edu/resources/the-effect-of-colorants-on-the-content-of-heavy-metals-in-recycled-corrugated-board-papers/>). We do not know the extent to which DEQ already analyzes potential special waste for requested Special Waste Management Plans, but we encourage particular attention be paid to the potential health effects from such materials if they are incinerated and emissions from them go out into the community.

Recommendation: The DEQ should include the rationale or basis for permitting Special Waste Management Plans and hold these Plans to high standards in order to avoid increasing potential health risks.

**7. Fire Hazards:** The inclusion of "accidental fires" under the heading "categorically insignificant activities" on page 9 of the appended Review Report vastly understates the problem should a significant fire occur in the waste mixing pit (outside the controlled incinerator). Large quantities of toxic emissions would spread during such an event, especially if the pit contained significant quantities of chlorine containing material, such as PVC.

Such fires have occurred in other states in incinerators operated by Covanta and other companies. Such an event could be more significant in terms of health effects than many



months' worth of regular emissions from the facility (and thus not "categorically insignificant"). Such fires are very hard to put out and have been known to smolder for days or even weeks. The possibility of hazardous air toxic emissions from an accidental fire could be quite significant.

This article describes the health warnings to residents when such a fire occurred in a Covanta facility in Montgomery County, MD in late 2017: "County officials are advising people in the immediate vicinity of the facility, who are experiencing asthma, chronic lung or heart conditions to minimize exposure by either staying indoors or to avoid the area. If you experience increased symptoms, you should contact your health care provider."

<https://www.mymcmedia.org/hundreds-of-firefighters-battle-blaze-at-incinerator-plant-in-dickerson/>

Two months later a similar fire occurred in a Covanta incinerator in Lorton, VA.

<https://www.wusa9.com/article/news/local/lorton-incinerator-fire-causes-regional-concern/65-397053209>

**Recommendation:** Based on a history of incinerator fires, the air quality permit should list "accidental fire" as a significant activity and must require Covanta Marion to have adequate fire suppression capacity and a fire emergency plan in place to immediately curtail such a fire. Furthermore, the DEQ should require that Covanta Marion carry adequate insurance to cover damages in the case of a fire and that they be held liable for resulting damages to firefighters and the surrounding community.

**8. Fly Ash Toxicity:** Since fly ash containing significant amounts of toxins is transported from the facility to an ash pile or landfill in a wetted condition and the permit appears to only deal with leakage from the ash transport vehicles when they're on the facility grounds, it seems prudent to also require routine testing along the relevant roadways for deposition of toxins from fly ash particles that might seep out of the vehicles with some of the liquid in the wetted ash. Even though only minute quantities might leak during a given trip, thousands of trips could allow accumulation of significant amounts that could then be breathed by other persons using those roadways. It would be prudent to mitigate the possibility of leakage or escaped ash particles with a lined truck compartment.

**Recommendation:** The DEQ should require the trucks transporting ash to have a lined compartment to prevent fly ash leakage and test for toxins along the roadways used.

**9. Protecting Public Health from mercury, sulfur dioxide and hydrogen chloride emissions:** Conditions 20, 21, and 22 for mercury, sulfur dioxide, and hydrogen chloride, respectively, should not include the words "whichever is less stringent". Under certain conditions when the currently allowable percentage of emissions of the chemical in the inlet gas stream (e.g., 15 percent of the potential mercury emission concentration) exceed the allowable numerical limit (e.g., 0.050 mg/dscm for mercury), then the actual quantitative limit of the chemical has been de facto raised above the currently allowable numerical limit (of 0.50 mg/dscm in the case of mercury and similarly for sulfur dioxide and hydrogen chloride), which is not acceptable. The facility should be limited by BOTH the relevant numerical amount as well as the relevant percentage reduction. If OARs must be changed to allow this to happen, then the relevant OARs should be changed. The health

of the people downwind from the facility should not be subject to the vicissitudes of the concentration of chemicals "in the inlet gas stream". Rather, the facility operators should ensure that the concentrations of chemicals in the inlet gas stream stay below levels that would produce unsafe levels of emissions.

Recommendation: The wording for those conditions should be changed as follows:

*"Mercury*

*20. Mercury emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 0.050 milligrams per dry standard cubic meter (0.000022 gr/dscf) AND MUST NOT EXCEED 15 percent of the potential mercury emission concentration (85 percent reduction by weight), corrected to 7 percent oxygen. [OAR 340-230-0310(3)(c)].*

*Sulfur Dioxide*

*21. Sulfur dioxide emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 29 parts per million by volume AND MUST NOT EXCEED 25 percent of the potential sulfur dioxide emission concentration (75 percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis). Compliance with this emission limit is based on a 24-hour daily geometric mean.*

*[OAR 340-0230-310(4)].*

*Hydrogen Chloride*

*22. Hydrogen chloride emissions from each municipal waste combustor unit (MWC-1 and MWC-2) must not exceed 29 parts per million by volume AND MUST NOT EXCEED 5 percent of the potential hydrogen chloride emission concentration (95 percent reduction by weight or volume), corrected to 7 percent oxygen. [OAR 340-0230-0310(5)]."*

**10. Require Continuous Emissions Monitoring:** Several of the preceding requests for changes in the facility's air quality permit would be better addressed by simply requiring the installation of continuous emissions monitoring equipment for toxins, as is currently done for similar facilities in countries all over the world. DEQ should pursue whatever law changes or federal permissions are required to make this happen and then make the installation and operation of this equipment part of the incinerator's air quality permit requirements.

Recommendation: The installation and operation of continuous emissions monitoring equipment for toxins must be a standard requirement of this air permit.

**11. Incorporate Cleaner Air Oregon rules immediately:** Page 11 of the appended Review Report says the permit will be modified to incorporate the Cleaner Air Oregon rules (OAR 340 Division 245) once the appropriate analysis has been completed. Based on the evidence that the incinerator emissions present a burden of air toxic exposure for

communities of color and low-income residents downwind of the facility, we request that Cleaner Air Oregon hazardous index and cancer benchmarks be added to the permit as soon as possible. The DEQ is encouraged to recognize and act to minimize the air toxic impacts to nearby vulnerable communities. In doing so, the measurement of actual emissions of toxins should not be based only on annual stack tests that are then “modeled” to simulate the dispersion of the toxins in the surrounding communities. There should be “on the ground” testing that includes such things as moss tests (as were done around the art glass factories in Portland), air monitoring tests outside the perimeter of the incinerator property, measurement of bioaccumulation of toxins in fish and/or other animals that live downwind from the incinerator (especially mercury -- and dioxin, if possible), and such other tests that would give a true estimate of the actual health effects on people who live downwind from the incinerator.

Recommendation: Apply Cleaner Air Oregon requirements in the new permit as soon as possible and specify their inclusion as a requirement of the new permit,

**12. Covanta Marion is a Medical Waste Incinerator:** Although the Covanta Marion incinerator does not currently qualify as a “medical waste incinerator” (by burning at least 10% medical waste per EPA) because only 6.71% of the waste burned there in the past three quarters was medical waste (per a communication from DEQ staff), it seems counterintuitive that this incinerator is not held to the stricter standards that EPA imposes on “large new medical waste incinerators.” Per medical waste incinerator emissions standards information contained in DEQ communications, this incinerator would already have exceeded some of those standards (for sulphur dioxide, carbon monoxide, nitrogen oxides, cadmium, lead, and mercury) during at least some of the recent past source tests. We believe EPA and DEQ should consider the health of people who live downwind from this waste incinerator to be just as important and fragile as the health of people who live downwind from a medical waste incinerator. We want the emission limits to be at least as strict as those for a large new medical waste incinerator. Marion County Commissioners already signed a new contract in September 2019 allowing Covanta Marion to burn up to 13,500 tons of out-of-state medical waste annually, which is a 2,500-ton increase above what was already being burned from out-of-state and in addition to in-state medical waste of more than 1,200 tons annually. The incinerator is well on its way toward the 10% level of medical waste incineration (about 9% if it burns 13,500 tons of out-of-state medical waste on top of in-state medical waste), and it is illogical to assume that its medical waste emissions suddenly become more dangerous *only* as it actually reaches that arbitrary 10% level.

Recommendation: Delay or do not approve a new permit for Covanta Marion until DEQ applies the federal standards of a new medical waste incinerator to the incinerator because, based on recent increases, the incinerator is already emitting toxins similar to a medical waste incinerator (with the same kinds of health effects) and could easily exceed the arbitrary 10% level of medical waste during the duration of this permit.

In conclusion, we ask that the DEQ **not approve** the Air Quality permit for Covanta Marion until all the conditions outlined here are addressed and remedied in order to protect public health and air quality for nearby communities.

Signed by the Following Oregon Organizations:

Lisa Arkin, Executive Director  
Beyond Toxics



Kathryn Salzmann, Member  
Eastside Portland Air Coalition



Eastside Portland Air Coalition

Laurie Daugherty  
350Salem



Mary Peveto, Executive Director  
Neighbors for Clean Air



Reyna Lopez, Executive Director  
PCUN





## **LUTTRELL Suzy**

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**From:** Laurie Dougherty <lauriedougherty@gmail.com>  
**Sent:** Monday, November 18, 2019 11:59 AM  
**To:** LUTTRELL Suzy  
**Subject:** Comment on Covanta/Marion Air Quality Permit  
**Attachments:** DEQ Air Quality Comment LD.docx

**To:**  
Suzy Luttrell, Permit Coordinator, Oregon Department of Environmental Quality  
4026 Fairview Industrial Dr. SE Salem, OR 97302  
Email: [luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From**  
Laurie Dougherty  
728 Church St. NE #7 Salem, OR 97301  
Email: [lauriedougherty@gmail.com](mailto:lauriedougherty@gmail.com)

**Re:**  
Covanta Marion Incinerator Air Quality Permit - Comment  
Permit Number 24-5398-TV-01  
Comment is in text below and also in attached document

Thank you for the opportunity to comment on the Air Quality Permit for the Covanta/Marion Incinerator

I urge DEQ to deny this permit. There are many areas of concern. I want to focus on the following aspects in particular:

**Greenhouse Gas Emissions should go down not up.** I understand that the new permit is required to account for biogenic emissions in addition to anthropogenic emissions and that this addition in and of itself would increase allowable limits above previous reporting requirements. However, Covanta/Marion has been reporting both biogenic and anthropogenic emissions to DEQ for several years. The highest combined total for GHGs in recent years was 172,780 metric tons CO<sub>2</sub>e in 2014. Since then, combined totals have been lower. In 2017, the most recent year for which data has been published, the combined total was 160,844 mt CO<sub>2</sub>e. At these reported levels Covanta/Marion is the greatest point source GHG emitter in Marion County. Yet, the draft permit would allow a substantially higher level of emissions than has actually occurred. Oregon is making efforts to reduce GHG emissions in order to address climate change. This permit should ratchet these climate-changing emissions down, not allow for an increase.  
<https://www.oregon.gov/deq/aq/programs/Pages/GHG-Emissions.aspx>

**Particulates are a serious health hazard.** The draft permit allows for an increase in small and fine particulates from current levels of 14 and 12 tons respectively to 16 tons each. This is unconscionable. Small and especially fine particulates can work their way into the lungs and bloodstream, thereby posing grave dangers to public health. They aggravate asthma and other respiratory diseases and have been implicated in cardiovascular diseases. These harmful effects have been shown to result in premature deaths at an alarming rate. Particulates are in the soot from combustion and in some cases are made up of fine bits of dioxins and heavy metals with related toxic effects. <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>

**Emissions Testing is inadequate.** Emissions need to be more closely monitored, both in the airshed and on the ground in order to understand fully what, how and where toxins disperse and where they fall and accumulate in soils.

**Cleaner Air Oregon evaluation**

I understand that Covanta/Marion is in the first cohort of facilities to be evaluated for health impacts under Cleaner Air Oregon. The permit, if issued, should incorporate CAO standards.

**Environmental Justice.** The area around Covanta/Marion includes a relatively large proportion of low income and minority residents as well as farm workers in nearby agricultural areas. These populations tend be overburdened with the harmful impacts of pollution. They should not suffer any additional adverse effects from the Covanta/Marion incinerator

--

Laurie Dougherty

**To:**

Suzy Luttrell, Permit Coordinator, Oregon Department of Environmental Quality  
4026 Fairview Industrial Dr. SE Salem, OR 97302  
Email: [luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

**From**

Laurie Dougherty  
728 Church St. NE #7 Salem, OR 97301  
Email: [lauriedougherty@gmail.com](mailto:lauriedougherty@gmail.com)

**Re:**

Covanta Marion Incinerator Air Quality Permit - Comment  
Permit Number 24-5398-TV-01

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Oregon is making efforts to reduce GHG emissions in order to address climate change. This permit should ratchet these climate-changing emissions down, not allow for an increase.

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## **LUTTRELL Suzy**

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**From:** Tori Heroux <tori@whatsinourair.org>  
**Sent:** Monday, November 18, 2019 2:03 PM  
**To:** LUTTRELL Suzy  
**Subject:** Covanta Marion comments from Neighbors for Clean Air  
**Attachments:** Covanta 2019 Permit Comments.pdf

Thank you for your consideration.

Sincerely,  
Tori Heroux, J.D.  
Program Director  
Neighbors for Clean Air  
(803)250-9604

October 2, 2019

Oregon Department of Environmental Quality  
Northwest Region Air Quality Program  
Attn: Suzy Luttrell  
4026 Fairview Industrial Dr. SE  
Salem, OR 97302

**Re: Covanta Marion, Inc's Proposed Title V Air Quality Permit Renewal**

Ms. Luttrell and the Northwest Region Air Quality Program Staff:

Neighbors for Clean Air ("NCA") respectfully submit these comments in response to the Oregon Department of Environmental Quality ("DEQ") call for public comment on Covanta Marion Inc's ("Covanta") Proposed Air Quality Permit Renewal.<sup>1</sup>

NCA is a non-profit organization, representing thousands of members throughout the state of Oregon, dedicated to protecting public health and the environment. We urge DEQ to carefully consider the proposed permit conditions and the proposed emissions levels for Covanta.

**I. Covanta's Plant Site Emission Limits Have Been Improperly Raised.**

Covanta's proposed emissions levels are very high and have not been adequately justified in their permit renewal application. Not only zero emissions reductions for these pollutants, but a significant *increase* is patently unacceptable. PM10, PM 2.5 and VOCs emissions should not be increased. Permitting should focus on general downward trends in pollution, rather than increasing or even maintaining the same amount of toxic emissions for years despite technological changes and growing awareness of toxics and the environmental and public health harms they create.

This facility burns up to 550 tons per day of solid waste. It is the largest single point emission source in Marion County. It is especially concerning that ODEQ is considering an allowance for increased emissions from this facility without having ensured that possible waste reductions and other efficiency measures have been considered. Best practices for municipal solid waste incineration include first and foremost *waste reduction*, along with proper incineration design and siting.<sup>2</sup> While it appears that the proposed permit contemplates design and control devices, there are no attempts to reduce waste discussed and siting is considerably less than ideal because of the facility's close proximity to a population center. There appears to be much low-hanging fruit in the arena of waste reduction, given the generally poor assessment of Oregon's management of waste; in 2017, Oregon recycled 27.1% of its waste and composted

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<sup>1</sup> Permit No: 24-5398. Application No. 28589.

<sup>2</sup> World Health Organization, *Best Practices for Incineration*.

[https://www.who.int/water\\_sanitation\\_health/medicalwaste/en/smincinerators3.pdf](https://www.who.int/water_sanitation_health/medicalwaste/en/smincinerators3.pdf).

only 9.5%.<sup>3</sup> Under no circumstances should waste from outside the state be imported for incineration so close to human receptors, and there needs to be clear evidence that everything possible is being done to reduce waste streams coming to be incinerated, based on the toxicity of the emissions associated with waste incineration.

Much of the municipal solid waste burned at Covanta is plastic. Burning plastics emits not only CO<sub>2</sub>, but also potent air toxics that have a negative impact on human health. There is no public good afforded by allowing this facility to operate with impunity. Garbage incinerators are more polluting than coal plants. According to the Energy Justice Network, "To make the same amount of energy as a coal power plant, trash incinerators release 28 times as much dioxin than coal, 2.5 times as much carbon dioxide (CO<sub>2</sub>), twice as much carbon monoxide, three times as much nitrogen oxides (NO<sub>x</sub>), 6-14 times as much mercury, nearly six times as much lead, and 70% more sulfur dioxides."<sup>4</sup> To allow increases in emissions from this source is unconscionable because of its proximity to receptors and because of the climate impacts. It is important to note this in a regulatory environment in which this facility is seriously being considered as a source of "renewable energy."<sup>5</sup>

Covanta Marion is currently allowed to import up to 15,000 tons of medical waste per year. According to ODEQ, 10,000 tons of that waste is being brought to Oregon from out of state. This import of out of state waste at the expense of downwind communities exposed to emissions of very toxic materials is opposite to the waste reduction that should be contemplated. Medical waste often includes heavy metals, bio-accumulative organic toxins, dioxins, hydrogen chloride and other toxics. The exact nature of the substances released during incineration depends on the composition of the waste that is incinerated, making it difficult to track how harmful emissions might be to surrounding receptors on a daily basis. Heavy metals are not destroyed by incineration but are instead concentrated in the remaining waste. Incineration of chlorinated organic compounds, such as PVCs, will cause the formation of hydrogen chloride (HCl), which contributes to the formation of dioxins.<sup>1,2</sup> "...[W]hatever control technology is applied, all types of incineration result in releases of toxic substances in ashes and in the form of gases/particulate matter to air."<sup>6</sup>

## **II. Covanta's Facility Should be Held to Higher Standards due to Close Proximity to Sensitive Receptors.**

Health impacts associated with emissions at Covanta include but are not limited to a higher incidence of cancer and respiratory symptoms, congenital abnormalities, developmental problems such as hormonal defects and increases in sex ratio, damage to the immune system, and heart, lung, vascular and nervous system disorders.<sup>7</sup> ODEQ knows that Covanta poses a risk to community members; the facility was

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<sup>3</sup> Environment Oregon, *The State of Recycling in Oregon*, 8, <https://environmentoregon.org/sites/environment/files/reports/The%20State%20of%20Recycling%20In%20Oregon.pdf>.

<sup>4</sup> Trash Incineration More Polluting than Coal, <http://www.energyjustice.net/incineration/worsethancoal>.

<sup>5</sup> See draft language of SB 451 and HB 2020; <https://olis.leg.state.or.us/liz/2019R1/Measures/Overview/SB451>; <https://olis.leg.state.or.us/liz/2019R1/Measures/Overview/HB2020>.

<sup>6</sup> Allsopp, M, Costner, P, Johnston, P. Incineration and Human Health. State of knowledge of the impacts of waste incinerators on human health. *Environ Sci Pollut Res Int*. 2001;8(2):141-5.

<sup>7</sup> Salman Zafar. (Sept. 2008) NEGATIVE IMPACTS OF INCINERATION-BASED WASTE-TO-ENERGY TECHNOLOGY. <http://www.alternative-energy-news.info/negative-impacts-waste-to-energy/>; National Research

ranked as high priority under the new Cleaner Air Oregon rules. Additional emissions should under no circumstances be granted while we do not even have a Health Risk Assessment about existing levels of pollution at Covanta Marion. The affected population includes those living, working, and going to school near the facility, as well as those living in the broader region. The cumulative impact of all of these emissions taken together is severe, especially for sensitive receptors like children, those with respiratory conditions, and the elderly. Willamette Valley Christian school is only 0.3 miles from the facility. The Brooks campus of Chemeketa Community College is a paltry 0.2 miles away. The facility is also less than a mile from Green Oaks Mobile Ranch, a low income housing area, and the Salem campus of Northwest University.

Covanta's air toxic pollution is an environmental justice issue because of community reports that air toxics and drifting ash negatively and disproportionately harm nearby communities in Woodburn and NE Salem. According to US EPA, the neighborhoods within a 7-mile radius around the Covanta waste incineration facility are in the 88th percentile for cancer and respiratory risks (using National Air Toxics Assessment data). Furthermore, the US EPA lists the area's demographics indicators for minority (86th percentile), low-income (70th percentile) and linguistically isolated populations (88th percentile) for an overall Demographic Index in the 83rd percentile compared to other areas in Oregon. This is all the more reason to reduce or maintain emissions until we have a fuller picture of the health risks actively being faced by community members in the area.

### III. Allowable GHG Emissions Are Too High

We have only twelve years in which to take aggressive action to stem the emission of CO<sub>2</sub> into the atmosphere or face runaway climate change. Covanta is currently the 20th largest source of GHG emissions in the state of Oregon. Covanta Marion releases far more GHG into the atmosphere than a modern landfill like Coffin Butte, while disposing of the same amount of solid waste. In a landfill, 74 to 81% of GHG remain sequestered indefinitely, and the GHG that are released occur gradually over decades.<sup>8</sup> By contrast, at Covanta, the release and dispersal of GHG from the stack is immediate upon burning. No GHG are sequestered by the incinerator. For every metric ton of plastic burned in an incinerator, 1,980 pounds of carbon dioxide (CO<sub>2</sub>) equivalent are released—nearly 15 times more than a ton of plastic waste that is land-filled.<sup>9</sup>

The concept of incentivizing the burning of waste because of its ability to create electricity should be seriously reconsidered. As a result of the plastic and similar waste from manmade materials or fossil fuels,

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Council. 2000. Waste Incineration and Public Health. Washington, DC: The National Academies Press. <https://doi.org/10.17226/5803>; R Sharma et al. (2013) Impact of incinerators on human health and environment. Rev Environ Health. 2013;28(1):67-72. doi: 10.1515/reveh-2012-0035; Oregon Physicians for Social Responsibility. (2015) Airborne Particulate Matter and Public Health. Fact Sheet. [https://d3n8a8pro7vhmx.cloudfront.net/oregonpsrorg/pages/29/attachments/original/1491857988/Airborne\\_Particate\\_Matter\\_and\\_Public\\_Health\\_Factsheet\\_%28FINAL\\_\\_updated\\_10-5-15%29.pdf?1491857988](https://d3n8a8pro7vhmx.cloudfront.net/oregonpsrorg/pages/29/attachments/original/1491857988/Airborne_Particate_Matter_and_Public_Health_Factsheet_%28FINAL__updated_10-5-15%29.pdf?1491857988).

<sup>8</sup> Oregon Physicians for Social Responsibility, Trash Talk from Covanta Marion, <https://medium.com/@oregonpsr/trash-talk-from-covanta-marion-49d983193a7d>.

<sup>9</sup> Environment Oregon, *The State of Recycling in Oregon*, 8, <https://environmentoregon.org/sites/environment/files/reports/The%20State%20of%20Recycling%20In%20Oregon.pdf>.

their “anthropogenic” greenhouse gases comprised nearly half of the over 160,000 metric tons of carbon dioxide equivalents that they emitted in 2017. This is additional to the serious health risks posed by the emission of other air toxics on local communities’ air, soil and water.

#### **IV. Conclusion**

In conclusion, we urge DEQ to deny this permit. The facility should be required to reduce or at least maintain current air toxics emission limits at Covanta Marion at least until we have more data about the health risks its activities pose to adjacent communities. More broadly, we encourage serious consideration about the requirement of waste reduction prior to any increases in emissions, along with any possible improvements in technology available to reduce fugitive ash emissions contaminated with heavy metals, dioxins and other air toxics hazardous to human health.

Sincerely,  
Tori Heroux  
Program Director  
Neighbors for Clean Air

## LUTTRELL Suzy

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**From:** Karen Hays <b\_6.2.3\_6788@icloud.com>  
**Sent:** Tuesday, November 19, 2019 10:58 AM  
**To:** LUTTRELL Suzy  
**Subject:** Coventa incinerator

Renewing the contract for the incinerator is a foolish and climate unfriendly experience. Putting more carbon in the atmosphere rather than less is regressive to say the least. Please protect our earth by not renewing that contract.

Karen Hays

Sent from my iPad